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Environmental Assessment Record

for

Route Relocation, Acquisition, and Construction

of the

Hauser Segment

Pacific Crest National Scenic Trail

Prepared by:

US Department of the Interior
Bureau of Land Management
California Desert District
El Centro Resource Area

In Cooperation With:

US Department of Agriculture
Forest Service
Cleveland National Forest

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AUG 0 5 1982

Dear Reviewer:

Enclosed for your review and comment is the draft Environmental Assessment Record (EAR) for Route Relocation, Acquisition, and Construction of the Hauser Segment, Pacific Crest National Scenic Trail (PCT). It has been prepared by the Bureau of Land Management (BLM) in cooperation with the U. S. Forest Service (USFS), which is the lead agency on the PCT project. This particular trail segment involves Federal, San Diego County, and private lands in the area of the communities of Tecate, Potrero, and Campo, California.

A route alignment for the Hauser Segment which terminated at the International Border near Tecate was selected by the Chief, USFS, and published in the Federal Register in 1973. Management problems unique to this segment (primarily involving Border security considerations) have necessitated a re-evaluation of the route.

The 1973 Federal Register published route is analyzed in this document as the "Proposed Action" (Alternative P), because it is the alignment currently approved by the Chief, USFS. However, as a result of this assessment, a joint BLM/USFS evaluation team has concluded that alternative alignment D-1, terminating at the International Border south of Campo, should be the preferred alternative for actual acquisition and construction. This assessment presents in detail the factors and considerations which entered into the route evaluation process.

Comments on this EAR should be received by this office no later than Sept. 13, 1982, in order to be incorporated into the final document. Any questions should be referred to Steve Nelson at (714) 352-5842 or FTS 894-2481.

Sincerely,

Roger D. Zortman
Area Manager

Enclosure

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I. INTRODUCTION

A. Background

On October 2, 1968, Congress passed the National Trails System Act (P.L. 90-543) establishing the Pacific Crest National Scenic Trail (PCT) for hiking and equestrain use. The PCT is the major western component of the national system of recreation and scenic trails. This 2,400 mile trail extends from Canada to Mexico generally following the mountain crests of the western states of Washington, Oregon, and California. The trail is "to be administered by the Secretary of Agriculture in cooperation with the Secretary of the Interior."

The agencies responsible for the construction and maintenance of the Pacific Crest Trail are the United States Forest Service (USFS) and the Bureau of Land Management (BLM). BLM's California Desert District is responsible for four segments of the PCT which lie in San Bernardino, Riverside, and San Diego Counties on public and private lands. These four segments include sections of trail near Whitewater, Anza, Julian, and Hauser Mountain. This Environmental Assessment Report (EAR) analyzes anticipated impacts resulting from the route relocation, acquisition, and construction of the southernmost segment of the Pacific Crest Trail from Hauser Mountain to the Mexican Border (see Map 1).

In the future, major responsibility for the surface management of the Escondido Project Area, of which the Hauser PCT segment is part, will be transferred to Cleveland National Forest under the authority of an interagency cooperative agreement. The BLM/USFS cooperative agreement (see Appendix A) has recently been signed by the California State Director, BLM, and the Pacific Southwest Regional Forester, USFS. Under the provisions of the agreement, USFS will assume responsibility for the right-of-way acquisition, survey, design, construction, and maintenance for the Hauser segment. BLM's responsibility for this segment will cease after completion of this EAR.

In May 1971, the US Forest Service published The Pacific Crest Trail: Guide for Location, Design, and Management. Guided by that publication along with input from the BLM, San Diego County Department of Parks and Recreation, California Division of Beaches and Parks, the Pacific Crest Trail Advisory Council, and numerous private landowners, a trail corridor was identified by Cleveland National Forest from the north boundary of San Diego County to the Mexican border. On January 30, 1973, in accordance with the National Trails System Act, this specific Pacific Crest Trail corridor was published in the Federal Register. (Volume 38, No. 19; January 30, 1973).

The published route of the Hauser segment is located in southcentral San Diego County within the BLM Escondido-Border Planning Unit. The southern terminus of the trail is located at the United States - Mexico Border 2.5 miles east of Tecate, California (Section 28, T. 18 S., R. 4 E., SBM). The trail passes northeast predominately on the public lands, crossing Highway 94 west of Bell Valley. From this point is continues east to the summit of Hauser Mountain and north to Hauser Canyon and the Cleveland National Forest boundary (Section 25, T. 17 S., R. 4 E., SBM). (See Map 2.)

Pending completion of the Hauser Segment, an unofficial "temporary" route was identified in a number of trail guides, and has been in use for over ten years. This route begins/ends at the International Border 1.7 miles south of the town of Campo, California. From the Border, the temporary route travels north on an unimproved road to Campo, then via Highway 94 and the Buckman Springs Road to the established PCT at Lake Morena Campground.

Certain management problems unique to this segment of the Trail became apparent after publication of the original route alignment in the Federal Register. The primary concern is that the published route's southern terminus is located in an area of traditionally high use by aliens and drug smugglers entering the United States illegally. This poses potential security risks to the trail user and policing problems for the US Border Patrol, which has intensive surveillance operations in the area.

B. Management Considerations

Below is a list of management issues and concerns delineated by a joint BLM/USFS team and the public during the public input phase of this analysis. While some issues are common to the PCT everywhere along its length, others are unique to this particular trail segment.

1. How compatible will the PCT location be with present and anticipated land uses, particularly private property development?

2. What will the impacts be on private landowners?

   - trail user trespass and vandalism
   - trail use by illegal aliens
   - increased fire risk
   - disturbance of existing solitude and lifestyle
   - sanitation problems

3. Does the trail meet PCT experience objectives?

   - a trail worthy of national scenic designation

- provide for maximum outdoor recreational potential

4. What effects will off-road vehicle recreational use have on the PCT?

5. How well will the trail meet the basic amenity needs of the hiker/equestrain user?

   - water availability
   - trailside campsites
   - trailhead facilities

6. What problems are anticipated due to the trail's terminus at the Mexican Border?

   - safety hazards for trail users
   - administrative problems for the Border Patrol because of trail user presence in an area where sensors are used to detect movement.
   - contact and possible searching of trail users by Border Patrol agents

7. What other safety hazards exist?

   - highway and railroad crossings
   - trail use of roads

8. How will the trail effect cultural resources and Native American values?

   - protection of cultural resource sites located near the trail
   - protection of Native American values in the Tecate Peak area

9. How well does the trail lend itself to public access or feeder trails?

   - availability of public transportation at the trail terminus

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- road access
- potential for feeder or spur trails to connect with other trail systems

10. Will the trail terminus be at an official entry point permitting access into Mexico?

11. What effects will the PCT have on the biophysical environment?

12. Will the trail be easily constructed or will it present construction problems?

13. How can timely completion of this long-awaited segment be best achieved?

14. What will the project cost?

    - trail construction cost
    - private land acquisition cost

C. Goals of Management

These "goals of management" were developed by an interagency BLM/USFS team as a basis for evaluating the proposed trail alternatives. These goals respond to the issues, concerns, and opportunities identified during the public input process. The final test of the route alternatives will be how effectively each satisfies these goals of management. These criteria are responsive to the intent of the National Trails System Act.

1. Maximize the Pacific Crest Trail experience.

   Source: National Trails System Act. Generally, this refers to the experience of viewing scenic vistas from a position of height.

2. Provide a southern terminus having convenient availability of a full range of trailhead facilities and services.

   Source: The Pacific Crest National Scenic Trail Comprehensive Plan (PCNST Comprehensive Plan), USDA Forest Service, January 1982. This includes the availability of public transporatation, secure parking, camping facilities, equestrian facilities, a post office, and stores providing food and other basic needs.

3. Maximize the use of public land rather than private land.

   Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982. Use of public land not only reduces project cost, but it also enhances the trail user's experience by providing a generally more primitive environment and more opportunities to leave the trail for rest or camping purposes.

4. Minimize overall project costs.

   Sources: BLM/USFS limited budgets for the PCT project.

5. Minimize adverse effects to private landowners.

   Source: National Trails System Act. In situations where private property must be crossed, every effort should be made to route the trail so that it will have the least impact to existing land values and uses.

6. Meet basic trail amenity needs (i.e., shade, water, campsites).

   Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982.

7. Minimize potential safety hazards, including confrontations between PCT users and illegal aliens and/or smugglers.

   Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982.

8. Minimize impacts to Border Patrol and U.S. Customs surveillance and enforcement activities, and minimize unnecessary encounters between PCT users and enforcement personnel.

   Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982.

9. Complement existing and anticipated land uses.

   Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982. Will the PCT location be compatible with existing uses of both public and private land, and remain so in the future?

10. Provide a trail terminus at an International Port of Entry permitting legal access into Mexico.

    Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982. Many PCT users would like to have the opportunity to cross, at least briefly, into Mexico.

11. Minimize adverse effects upon the biophysical environment.

Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982.

12. Minimize the adverse effects to cultural resources and Native American values.

Source: PCNST Comprehensive Plan, USDA Forest Service, January 1982.

13. Minimize changes from the Federal Register location.

Source: National Trails System Act.

14. Provide access to the PCT for the public via feeder trails and trailheads, and for management purposes.

Source: PCNST Comprehensive Plan

II DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action (Alternative P)

The proposed action is the establishment of the portion of the Pacific Crest Trail known as the Hauser Segment from the existing southern terminus in Hauser Canyon to its ultimate destination on the International Boundary with Mexico, following the alignment of the route published in the Federal Register.

To accomplish the Proposed Action, the following discrete actions will be required:

Survey: Pre-construction requirements include survey of a centerline of the proposed trail route. The cutting and trimming of brush in areas of high shrub density may be required.

Acquisition: Appraisal and purchase of 30 foot easements on portions of the trail line on private property will be required.

Construction: According to design criteria set forth by the U.S. Forest Service (PCNST Comprehensive Plan, 1982), the trail should be designed in general "to produce a minimum disturbance to the natural environment and...consider the protection of the adjoining resources, the safety and equipment of the user, the volume and type of traffic and the economics of construction." In addition, the design should incorporate features that mitigate adverse impacts upon the environment, and that result in a trail of high quality and permanence that is inexpensive to maintain.

Specific design and construction criteria that apply to the trail as a whole (excluding areas requiring special technques to mitigate hazards to the environment or users) are listed below. These are presented here to acquaint the reader with the physical nature of the proposed action.

Dimensions

Tread width -

- 18 - 24 inches in general
- at least 48 inches along a precipice or hazardous area
- 36 inches at fords through small streams or at built-up sections across flat areas
- 96 inches (8") at switchback landings

Brush and limb clearing -

- 10 feet overhead clearance (segments specified for hikers only may be 8 feet)

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* 8 feet width (segments specified for hikers only may be 4 feet)

* 6 feet width is permissable where trees over 10 inches in diameter cannot be avoided

* Clearing may be wider to expose a desirable view

Grade

* generally not to exceed 15%

* may exceed 15% for short distances in areas where no adverse effects will result

* 8 feet width (segments specified for hikers only may be 4 feet)

* 6 feet width is permissable where trees over 10 inches in diameter cannot be avoided

* Clearing may be wider to expose a desirable view

Grade

* generally not to exceed 15%

* may exceed 15% for short distances in areas where no adverse effects will result

* use of switchbacks should be held to a minimum

Alignment

* the trail should be "fit" to the ground and generally follow contours

* switchbacks should utilize topographic features as turning points

* the trail should be located on the upper portion of the land mass and follow the "crest" where feasible

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Drainage

* surface drainage will be provided by undulating the grade, out-sloping the surface or installing water bars

* cross drainage will be provided by metal or wood culverts or open rock drains

Trail Surface

* where native soil is not adequate to prevent erosion, dust, or mud, tread surfacing material will be used which will blend with the natural environment

Structures

* retaining walls, bridgings of various sorts, raised trail sections or barriers may be required in certain locations

* construction should be of native materials and in accordance with standards of the responsible agency

A more detailed account of the design and construction criteria are provided in the PCNST Comprehensive Plan.

Alignment: The alignment of the Proposed Action follows the Federal Register published route (see Map 2). The route begins on a section of public land located on the United States - Mexican Border 2.5 miles east of Tecate, California. Leaving the Border, this route begins a climb up a chaparral covered ridge generally trending a northeasterly direction. The route then turns north, briefly cutting across a private parcel of land (#654-071-04, 160 acres *) before returning to public land and continuing north along a steep rocky ridge. From an elevation of approximately 2,600 feet, the route decends east along a drainage, entering private land (#654-080-01, 9.31 acres) and then crossing State Highway 94 about one mile west of Bell Valley (1100 ft. east of Highway Milepost 44.0).

From the highway, the alignment travels north over more public land. Approaching Hauser Mountain, the route crosses a 0.6 mile section of private land (#654-030-30, 21.29 acres, #654-040-01, 78.28 acres, and #654-040-20, 40 acres) eventually climbing the west slope of an intermittent stream to re-enter public land. The trail continues winding

* The numbers indicated refer to the San Diego County parcel number for each tract of private land. The acreage given is the total number of acres for each parcel the route crosses, not the number of acres to be acquired.

through dense chaparral, climbing approximately 800 feet to reach the open summit of Hauser Mountain (elevation 3808 feet). Past the summit, the route moves north along the broad relatively flat top of the mountain. Turning west and passing above a small wooded clearing, the route reaches a point where two dirt roads intersect (N 1/2 of Section 2, T. 18 S., R. 4 E., SBM). Crossing the roads, the route continues north for approximately 1.5 miles before turning east to begin the steep descent into Hauser Canyon. In Hauser Canyon, the route traverses a 0.3 mile section of private land (#604-140-01, 160 acres) before connecting with the established Pacific Crest Trail at the boundary of Cleveland National Forest.

B. Alternatives to the Proposed Action

This document analyzes five alternatives to the proposed action. The alternative not to construct the trail ("No Action" alternative) is not feasible. The decision to build a trail in this general vicinity was made by Congress when it passed the National Trails System Act of 1968. Since the law mandates construction of a trail, the No Action alternative will receive no further consideration in this document. The other alternatives are identical to the Proposed Action (Alternative P) with respect to all discrete actions except route alignment (see Map 3).

The National Trails System Act of 1968 recognized that relocations from the *Federal Register* published route might be necessary to "preserve the purpose for which the trail was established," and "to promote a sound land management program in accordance with established multiple use principles." If the relocation is not "substantial" it must only be approved by the Secretary of the Agriculture. If the relocation is of "a substantial nature," an act of Congress is required.

Selection of the final alignment for the Hauser Segment must consider potential legislative constraints, land use conflicts, and operational problems unique to this section of the PCT. Inherent problems with the published route have underscored the need for the development of alternative route alignments. Several alternative route alignments were suggested for this assessment as a result of interagency meetings between BLM and USFS, consultation with Pacific Crest Trail Advisory Council members, and formal public input.

1. Alternative A

From the border customhouse at Tecate, the route would run north along the edge of State Highway 188 (Tecate Road) for 0.6 miles. Leaving the road and turning northwest, the route climbs up and over a moderately steep ridge. The route descends via several switchbacks to cross State Highway 94 at a point approximately 0.5 miles west of the junction of Highways 94 and 188 (450 ft. west of Highway Milepost 38.5).

North of the highway, the route enters private land (#652-050-08, 38.45 acres, #652-050-12, 39.0 acres, #652-040-05, 40 acres, and #652-040-06, 40.0 acres) as it follows downhill along the north side of Potrero Creek. Near the junction of Grapevine Creek, the route rejoins public land. From this point, the route winds in a northerly direction for 9.5 miles along a steep chaparral-covered ridge overlooking Cottonwood Creek and Round Potrero, crossing two more parcels of private land (#652-040-01, 200.0 acres, #602-150-01, 280 acres) along the way. This portion of the route is rugged with frequent elevation changes.

The route crosses several drainages including McAlmond Canyon before reaching the boundary of Cleveland National Forest. Once on Forest Service land, the route turns east along the steep contours of Hauser Canyon. The route crosses the canyon bottom at an abandoned campground on Cottonwood Creek. From here, the trail climbs out of the canyon skirting the south slope of Morena Butte to reach the completed PCT.

2. Alternative B

This alignment would begin at the border customhouse at Tecate. From the Border, the route moves through a residential area along Old Tecate Road, then turns east on a private dirt road past several more houses (#654-110-10, 17.68 acres, #654-110-08, 65.02 acres, and #654-110-64, 80.45 acres). At approximately the 1.4 mile mark, the route turns northwest, climbing the west-facing slope above an intermittent stream (#654-050-03, 83.28 acres, #654-060-02, 190.95 acres).

The route continues to climb to a high point elevation of 2,600 feet at a location just south of State Highway 94 (#654-060-05, 320.00 acres, #654-060-04, 79.49 acres, #654-070-01, 43.13 acres), crossing Highway 94 approximately 1/2 mile west of the intersection of Highway 94 and the Harris Ranch Road (700 ft west of Highway Milepost 43.0). Across the highway, the route continues north on private land (#654-030-15, 86.09 acres, #654-030-05, 33.24 acres, #654-021-02, 94.99 acres) along the chaparral covered foothills west of Hauser Mountain before entering the south end of Potrero County Park.

The route leaves the east side of the Park and continues in an easterly direction climbing a drainage to pass through three parcels (#653-120-06, 187 acres, #653-120-08, 12.01 acres, and #653-120-07, 80 acres). Soon a small parcel of public land is reached and the route continues along the foothills. Re-entering private land (#653-080-04, 299.0 acres, and #653-080-03, 76.81 acres), the route crosses a small creek. One-third mile beyond the creek, the trail enters public land and begins the climb up Hauser Mountain. Turning north, the trail traverses up and over the northwest portion of the mountain. Approximately 0.6 miles after entering public land Alternative B reaches the junction of two dirt roads (Section 2, T. 18 S., R. 4 E., SBM). At this point, Alternative B meets the alignment of the published route. From here, Alternative B follows the route detailed in the Proposed Action.

3. Alternative C

This route is a modification of the published route (Alternative P). The terminus for this alignment is the customhouse at Tecate, rather than 2.5 miles east of town as in the published route. The first 1.4 miles of the route are identical to Alternative B. At approximately the 1.4 mile mark, the route dips southeast along a dirt road across rolling pastureland (#654-120-02, 225 acres). The route closely parallels the International Border for the next 0.8 miles. Then the route turns northeast, climbing a seasonal drainage on public land. Continuing eastward, the route connects with the published route alignment (Section 21, T. 18 S., R. 4 E., SBM). From this point, Alternative C follows the published route (Alternative P) to the Cleveland National Forest boundary in Hauser Canyon.

4. Alternative D

In contrast to the Proposed Action and the preceding alternatives, Route Alignment D begins/ends on the Mexican Border approximately 1.7 miles southeast of Campo, California. The trailhead for this route is near the adobe ruins of an old Border crossing station. This trailhead is currently used as the southern terminus for the "temporary" alignment of the Pacific Crest Trail. The route begins by following the International Border approximately 200 feet west. Here, the route turns north following the west property line of a private parcel (#656-090-05, 144.01 acres) for 0.3 miles, then turns west onto land owned by the County of San Diego. The route follows property lines and the edge of a dirt road through a large pasture. This pasture is part of the Rancho Del Campo complex, a San Diego County correctional facility for juveniles. The route passes along the edge of the pasture for approximately 0.7 miles, then continues north along Forrest Gate Road for approximatly 0.2 miles.

The trail then leaves the road, just south of the U.S. Border Patrol station, turning west across San Diego County lands and paralleling State Highway 94 on the south side at a distance of 0.1 to 0.3 miles from the road. Approximately one-half mile after leaving Forrest Gate Road, the route turns north and crosses Highway 94 approximately 150 ft. west of Highway Milepost 50.0. Continuing north, the route crosses Campo Creek a short distance downstream from Campo Lake. The alignment then turns west, following along the edge of County property before entering private land (#656-030-10, 32.85 acres) and crossing the San Diego and Arizona Eastern Railroad at railroad milepost 64.4. The route crosses some low hills on BLM public land, then enters private land (#656-020-08, 160.0 acres, #656-020-11, 139.60 acres) for 0.4 miles.

Shortly after re-entering public lands, the route begins to ascend Hauser Mountain. The steep climb up the southeast slope of the mountain is through a broad drainage. On top, the trail passes near a small oak grove/meadow near the 3,300 foot elevation mark and travels west climbing gradually to near the summit of Hauser Mountain (3,808 feet). A short distance (0.2 miles) further, this alternative route meets the published route alignment (Section 11, T. 18 S., R. 4 E., SBM) following the same route as the Proposed Action alignment for the final 4.2 miles.

5. Alternative D-1

This route was suggested by several recreationists during the public input phase of the route analysis. It is a shorter, more direct version of Alternative D. The alignment follows the same course described in Alternative D for the first 6.5 miles. From a point on top of Hauser Mountain (Section 12, T. 18 S., R. 4 E., SBM), the trail diverts north travelling across the eastern slope of the mountain, closely following the 3,520 foot contour. Continuing in a northerly direction, the route begins a slow decent along a drainage leading into Hauser Canyon. Passing through several long switchbacks, the route continues to descend into the canyon, meeting the alignment of the Published Route, crossing a 0.3 mile section of private land (#604-140-01, 160 acres) to reach the PCT at the boundary of Cleveland National Forest.

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III DESCRIPTION OF THE EXISTING ENVIRONMENT

A. Non-Living Components

1. Topography

The study area is located in the Laguna Mountains of southcentral San Diego County, and is part of the Peninsular Range geomorphic province. The Peninsular Ranges are characterized by steep, high-relief terrain with major northwest trending ridges and rolling mountains (Hauser Mountain), broad flat valleys (Potrero Valley) and deep canyons (Hauser Canyon). Elevations range from 1,600 feet along Potrero Creek to the 3,808 ft. summit of Hauser Mountain.

2. Climate

The study area climate is Mediterranean, modified by a series of north-to-south oriented mountains. Annual precipitation normally averages 15-20 inches and is associated with rainstorms of moderate intensity lasting for short durations. July and August are the warmest months with a mean monthly temperature of 69.6°F. January is the coldest month with a mean low temperature of 43.7°F.

3. Water Resources

Major drainages in the south portion of the study area are Potrero Creek and Campo Creek. Grapevine Creek and Cottonwood Creek (McAlmond Canyon) are in the west, and a second Cottonwood Creek and Hauser Creek, located in Cleveland National Forest, border the northern portions of the study area.

In addition to these major drainages, numerous intermittent streams occur. A few surface springs are located on the public lands within the study area. On a seasonal basis, water sources may be found on the east side of Hauser Mountain and along Hauser Canyon. Generally, though, surface water resources are sparse and unreliable (see Water Resources Map 4).

4. Soils

Over 17 different soil types representing four major soils groups are found along the route alternative alignments within the study area (see Soil Associations Map 5).

Group II. Excessively Drained to Well-Drained, Gently Sloping to Strongly Sloping Loamy Coarse Sands to Sandy Loams on Alluvial Fans in Basins and Mountainous Areas.

The soils in this group were formed in material derived from granitic rock. Slopes range from 2 to 15 percent. The elevation ranges from 2,500 to 4,500 feet. The average annual rainfall is between 11 and 22 inches, and the average annual air temperature between 56° and 59°F. The vegetation consists of annual grasses and forbs, shrubs, and scattered California oaks.

Group V. Excessively Drained to Well Drained, Moderately Sloping To Very Steep Loamy Coarse Sands to Loams on Uplands and Mountainous Areas.

The soils in this group were formed in material derived from mica schist, gabbro, granodiorite, and quartz diorite. Slopes range from 5% to 75%. In many areas, these soils are eroded. In most areas rock outcrops or stones cover 2% to 10% of the surface. The elevation ranges mainly from 2,000 to 6,000 feet. The average annual precipitation is between 12 and 36 inches, and the average air temperature between 53° and 58°F. The vegetation consists mainly of chaparral and an understory of annual grasses and forbs.

Group VI. Excessively Drained to Moderately Well Drained, Gently Sloping to Very Steep Sandy Loams to Silt Loams on Uplands in Foothill Areas.

The soils in this group have a coarse sandy loam to clay subsoil. They are derived from granitic rock, gabbo, tonalite, metavolcanic rock, and metasedimentary rock. Rock outcrops cover up to 10 percent of the surface in many areas. Slopes range from 2 to 75 percent. The elevation ranges from 200 to 3,500 feet. The average annual rainfall is between 12 and 20 inches, and the average air temperature is between 59° and 64°F. The vegetation consists mainly of a chaparral-type cover with an understory of annual grasses and forbs. Scattered oaks and other tree species grow along drainage ways and in areas where water collects.

Group VIII. Rock Land Association.

This soil association is 50 to 90 percent exposed bedrock with very large boulders. The outcrops and boulders are chiefly granodiorite, quartz diorite, gabbo, mica schist, metavolcanic rock, and metasedimentary rock.

B. Living Components

1. Vegetation

Four general vegetation types are found along the route alignments within the study area (see Vegetation/Wildlife Habitat Map 6).

Chaparral: The chaparral is a shrub dominated vegetation type that extends over most of the study area. Shrub densities range from moderate brush to thick, nearly impenetrable stands of 6-10 foot high growth.

Oak Woodland/Meadow: Several small oak woodland clearings are scattered in lower-lying areas atop the broad rolling plateau of Hauser Mountain.

Riparian Woodland: Riparian woodland is found along most major water courses and along some intermittent streams, in a narrow, frequently discontinuous band.

Grassland/Pastureland: Areas dominated by grasses are common and occupy valleys and gentler slopes with deeper, fine soils. The grassland type is commonly found interspersed with the dominant chaparral growth. Pasturelands for domestic livestock compose the other major grassland areas in the study area.

Vegetation Type and Representative Species	Species Common Name	Habitat
Grassland		
Avena barbata	Wild Oat	Annual Grass
Stipa pulchra	Needlegrass	Perennial Grass
Bromus mollis	Soft Cheese	Annual
Chaparral		
Adenostema fasciculata	Chamaise	Shrub
Adenostema sparsifolium	Redshank	Shrub
Arctostaphylos glauca	Manzanita	Shrub
Ceanothus tomentosus	Ceanothus	Shrub
Oak Woodland/Meadow		
Quercus agrifolia	Coast Live Oak	Tree
Quercus engelmannii	Engelman Oak	Tree
Riparian Woodland		
Platanus racemosos	Sycamore	Tree
Populus fremontii	Cottonwood	Tree
Salix spp.	Willow	Tree

2. Wildlife

The four vegetation types also define wildlife habitat types (see Vegetation/Wildlife Map 6). Each habitat type has its own unique association of plants and animals. The limits of each type are, in turn, determined by non-living components such as soil, topography, and climate.

Many species are limited in their adaptation, and are found only in the habitat that provides for their narrow, restricted needs. Still others, however, are not so limited and are found over a variety of habitat types.

Riparian Woodland: Typical wildlife species in this habitat include: California quail (Lophortyx californicus), mourning dove (Zenaida macroura), Wilson's warbler (Wilsonia pusilla), dusky-footed woodrat (Neotoma fuscipes), and the valley pocket gopher (Thomomys bottae).

Chaparral: Wildlife species typical of the chaparral habitat overall include the mountain quail (Oreortyx pictus), wrentit (Chamaea fasciata), California thrasher (Toxostoma redivivum), brush rabbit (Sylvilagus bachmani), gray fox (Urocyon cinereoargenteus), coast horned lizard (Phyrynosoma coronatum), and speckled rattlesnake (Crotalus mitchelli).

Grassland/Pastureland: The typical wildlife species include the horned lark (Eremophila alpestris), lark sparrow (Chondestes grammacos), western meadowlark (Sturnella neglecta), and pocket gopher (Thomomys bottae).

Oak Woodland/Meadow: These small open woodlands are scattered over the broad plateau of Hauser Mountain. Typically, the White-breasted nuthatch (Sitta carolinesis), Warbling vireo (Vireo gilvus), Cooper's hawk (Accipiter cooperii), and Western grey squirrel (Sciurus riseus) are found in this vegetative type.

In addition, certain species are found to range through most of the different habitat types. These include the Scrubjay (Aphelocoma coerulescens), Red-tailed hawk (Buteo jamaicensis), Coyote (Canis latrans), Mule deer (Odocoileus hemionus), and Bobcat (Lynx rufus).

3. Rare, Endangered, and Sensitive Plants and Animals

a. Plants

The following eleven special status plants are known to occur in the study area. They have been compiled from the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California. CNPS has designated these plants "rare" or "endangered," and while they do not have legal "listed" State or Federal status as rare, endangered, or threatened plants, they are considered species of concern by the BLM and USFS.

Scientific Name	Common Name
Caulanthus stenocarpus	Slender-pod caulantus
Monardella hypolevca	Felt-leaf monardella
Chamaebatia australis	Mountain misery
Haplopappus junceus	(None)
Hemizonia floribunda	Tecate tarweed
Lathyrus splendens	Pride of California
Astragalus deanei	Dean's locoweed
Solanum tenvilobatum	Narrow-leaved nightshade
Ribes canthariforme	Morena current
Geraea viscida	(None)
Dudleya abramsii	(None)

Refer to Sensitive Plants/Wildlife Map 7 for the distribution of these plants.

b. Wildlife

None of the wildlife species known to inhabit this area are officially designated as rare or endangered. Much of the region has been identified as good foraging and nesting habitat. Sensitive raptors which have not been recorded, but which may occur include the Golden Eagle (Aquila chrysaetos) and the Praire Falcon (Falco mexicanus). Another bird species, the Least Bell's Vireo (Vireo bellii pusillus), was recorded as nesting along Campo Creek in 1977. This bird is a State of California Endangered Species and is also under status review by the U.S. Fish and Wildlife Service. Sensitive mammals of concern found in the general region include the Couger (Felis concolor) and the Ringtail Cat (Basseriscus astutus).

C. Human Interest Values

1. Recreation

a. General

Several recreational activities occur on or in close proximity to the alternative alignments in the study area. These include: hunting, picnicing, hiking and backpacking, off-road vehicle (ORV) use, horseback riding, and camping.

Both private and public campgrounds are found in the area. The privately owned Campo Lake Campground is located in the town of Campo. North of Potrero, the Picnic Lake Park (private) and the Potrero County Park (San Diego County) provide campground and picnicing opportunities.

Currently, very limited hiking and backpacking opportunities exist due to the lack of foot trails in the area and limited access across private property. Some occasional hiking and backpacking use is known to occur in the northern portion of the study area along Hauser Canyon.

Several riding clubs are located in the south-central part of San Diego County. The Border Riders Club based in Campo often conducts horseback riding activities in this region.

Good hunting potential exists on both National Forest and BLM lands in the vicinity of the alternative trail alignments. Upland game hunting is rated "good" throughout USFS/BLM lands. "Excellent" big game (mule deer) hunting can be found on Hauser Mountain. While potential hunting opportunities are good, an overall lack of public access to these areas has restricted much of the hunting use.

Vehicle use on public lands in the area is restricted to designated roads and trails. Currently, little ORV use occurs on the public lands in the area due to a lack of public access.

Recently, the BLM applied to the State of California Off-Highway Vehicle Fund for a grant to purchase vehicle access easements across private land. If the easements are purchased, access to designated roads and trails on Hauser Mountain will be provided.

b. Wilderness

Small segments of each of the route alignments pass through either Forest Service or BLM areas currently under review for wilderness designation.

A relatively small 5,489 acre BLM Wilderness Study Area (WSA) is located on Hauser Mountain (see Wilderness Map 8). Portions of each route alignment except Alternative A would cross this WSA. The Draft Western Counties Wilderness Environmental Impact Statement (EIS) has proposed that the Hauser Mountain WSA be considered unsuitable for wilderness designation.

The north slope of Hauser Canyon comprises the other area under wilderness review. This 8,000 acre Forest Service RARE II area has been recommended for further study (see Wilderness Map 8).

c. Visual Resource Management

The study area lies within the Lower California Landscape Providence, a northern extension of Baja California. A complex and diverse landscape, it is characterized by steep, rugged mountainous areas interspersed with grassland basins and adjacent rolling hills.

Mountains are oriented in an overall northwest-southeast directional trend which runs parallel to major geologic faults in the region. However, other faults branching from these interrupt the trend, increasing the complexity of the landscape.

Landscape physiographic character types found in this study area include mountains, steep hills, valleys, and riparian zones.

The Escondido-Border Planning Unit Management Framework Plan (MFP) did not delineate Visual Resource Management (VRM) classes for the public lands in the study area. For the purposes of this document, VRM class designations have been determined from information contained in the APS/SDG&E Interconnection Project Environmental Statement and the Pacific Crest National Scenic Trail Management Options Plan. This data has been incorporated within the guidelines set forth in BLM Instruction Memorandum Number CA-060-080-86 which details interim instructions for areas where MFP's do not delineate VRM classes.

The method used for the inventory and evaluation of the visual resources involves three general components: Scenic Quality, Visual Sensitivity, and Distance Zones. The combination of these components determines the VRM Class for each particular unit or subunit within the study area

Distance zone categories as defined in the BLM VRM system include the following: foreground/middleground (from a viewer location to a distance of 3-5 miles), background (from 3-5 miles to approximately 15 miles), and seldom-seen areas (beyond the approximate 15 mile limit). The seldom-seen designation is also applied to areas that, because of topographic screening, are unseen form any designated viewer location.

Visual sensitivity ratings indicate the relative sensitivity to changes in the existing landscape character. The criteria used for the determination of visual sensitivity are user volumes and expressed attitudes towards change. Trail segments were assigned a high rating for viewshed sensitivity due to the PCT's national significance and inherent recreation experiences. It is also assumed that user concern is high.

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Scenic quality is perhaps best described as the overall impression retained after driving through, walking through, or flying over an area of land. When inventoried, an area is divided into subunits that appear homogeneous, generally in terms of landform and vegetation. Each area is then rated by seven Key Factors: landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modification. A standarized point system assigns great, some, or little importance to each factor. The values for each category are calculated and, according to total points, three Scenic Quality ratings are assigned. Class A, B, and C designations depict areas that combine the most outstanding, some outstanding-some common and mostly common features to the physiographic region, respectively.

All three Scenic Quality classifications are found in the study area (see Map 9).

Three of the possible four VRM Classes (II, III, and IV) occur in the study area. A fourth designation, Class I, may occur if the Hauser Mountain WSA (BLM) or the Hauser RARE II Area (USFS) become designated wilderness areas in the future.

BLM management class guidelines are identified as follows:

Class I (Designated Wilderness Areas) - This class provides primarily for natural ecological changes; however, it does not preclude very limited management activity. Any contrast created within the characteristic environment must not attract attention.

Class II - Changes in any of the basic elements (form, line, color, texture) caused by a management activity should not be evident in the characteristic landscape. A contrast may be seen, but should not attract attention.

Class III - Contrasts to the basic elements caused by a management activity may be evident and begin to attract attention in the characteristic landscape. However, the changes should remain subordinate to the existing characteristic landscape.

Class IV - Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements inherent in the characteristic landscape.

d. Pacific Crest Trail

1) Existing Use

The temporary trail alignment in common use begins/ends at the Mexican border south of Campo, California. From the border, the temporary route follows a series of unimproved roads and paved highways north to the established Pacific Crest Trail at Lake Morena County Park. Due to the unappealing nature of this "notorious road hike," use of the temporary alignment is limited largely to "through hikers" who wish to hike the entire PCT, from Mexico to Canada. Unofficial use estimates indicate that approximately 150-200 hikers and equestrians utilize the Hauser segment temporary alignment each year.

2) Projected Use

Use of the trail will be two types - hiking and horseback riding. Visitor use estimates for the Hauser segment have been prepared for BLM by Economics Research Associates in conjunction with EDAW, Inc. (Pacific Crest National Scenic Trail Management Options Plan). These projections of visitor-use demands are based on analysis of population distributions, recreation participation patterns, propensity to travel to PCT areas, the location and physical characteristics of the BLM trail segments, and comparable experiences for other major trails.

The following tables summarize the Hauser segment use projections:

PRELIMINARY HIKER/BACKPACKER USE PROJECTIONS

Segment	Demand (Visitor Days)	Per Week(1)	Average Weekday	Design Day Weekend	Weekend as Percent of Total Usage(2)
Hauser	1,000	77	8	19	50%

1- Thirteen week season, generally spring and fall.
2- This relatively low percentage is due to the large proportion of Hauser Segment users expected to be long distance hikers.

INTENSITY OF TRAIL USAGE FOR HIKER/BACKPACKERS
(preliminary estimates)

Segment	No. of Persons on Weekend Design Day	No. of Groups(1) on Trail	No. of Groups Per Mile	Encounters Per Hour	Encounters Every:
Hauser	19	5	0.5	0.6	1 hr + 40 min.

1- At 3.5 persons per group
2- At average speed at 1.25 miles per hour

POTENTIAL EQUESTRIAN USAGE
OF PCT SEGMENTS

Segment	PCT Visitor Days (Hiking/Backpacking)	Percent Equestrian(1)	PCT Visitor Days (Equestrian)	PCT Visitor Days (Total)
Hauser	1,000	25%	250	1,250

1. Historically, the equestrian use of the PCT in comparable areas has been closer to 15% of the total use. The higher figure is used to compensate for the high degree of interest, and large concentration of horses and riding clubs in San Diego County.

3) Access into Mexico

Trail alignments terminating at Tecate (A, B, and C) do so at an official Port of Entry which would allow access into Tecate, Baja California, Mexico. This offers the opportunity to visit a foreign country and experience the Mexican culture found in this small Mexican border city.

There is no official access into Mexico from the proposed trail alternative D/D-1 terminus south of Campo. From this point, the nearest border crossing is at Tecate, approximately 11 miles west of Campo. Public bus service between Campo and Tecate is limited to one daily round trip on Monday, Wednesday, and Friday.

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e. Recreation Opportunity Spectrum

Recreation Opportunity Spectrum (ROS) classes have not been formally established for the study area through land-use planning. The ROS classes shown on Map 10 were developed for this study to provide an indication of the types of recreational opportunities afforded by each route alternative if it were implemented.

Guidelines for the ROS classes, as delineated in the PCNST Comprehensive Plan, are as follows:

Semi-primitive Nonmotorized: Trail segments in this category will have as their primary objective the provision of a near primitive wildland environment. The trail will have a natural setting which may have subtle modifications that would be noticed, but not draw the attention of an observer wandering through the area. The trail will be at least one-half mile from all roads, railroads, or trails with motorized use. Therefore, the opportunities for direct public motorized access will not be provided.

Except in designated wilderness, camp sites may be designated and provided with rudimentary improvements.

Users may usually expect no more than 6-15 parties per day encountered on the trail and six or less parties visible at campsites. Opportunities for solitude and exercising outdoor skills will be present, but the areas are not as remote as in the primitive class.

Semi-primitive Motorized: Trail segments in the ROS class will be in a natural setting which may have moderately dominant alterations, but will not draw attention, as would be judged by motorized observers on trails and primitive roads within the area. The trail may be accessed by primitive roads or motorized trail routes no more frequently than one-half mile intervals. Roads, better than primitive, may be no closer than one-half mile from the trail.

Campgrounds available along these sections may have more highly developed facilities for resource protection and comfort and convenience of the user. Such amenities as vault or chemical toilets, enclosed fireboxes, and wood tables may be provided.

User interaction along these segments will be low to moderate in frequency. The user may experience more control and regulation, but will still have a feeling of achievement, adventure, and a release from the dominance of man's structures or noise.

Roaded Natural: Trail segments in this ROS class pass through areas where the natural setting may have modifications which range from being easily noticed to strongly dominant to observers within the area. From the PCT, these alterations would remain unnoticed or visually subordinate. Roads, better than primitive, or railroads may cross the trail, but no more frequently than one-half mile intervals. The most highly developed campgrounds along these segments may have plank tables, enclosed firebox or charcoal grills, vault or flush toilets, and litter containers.

User interaction may range from moderate to high at access roads and low to moderate on the trail away from the roads. There will be little opportunity for a feeling of remoteness and the presence of nonrecreational activities may result in a need for more signing for information and regulation. This ROS class fits well in those situations where good roads make access easy for people with a variety of interests and motivations.

Rural and Urban: Trail segments in this ROS class pass through areas where the natural setting is culturally modified to the point that it is dominant to the travel route observer. The setting may include pastoral, agricultural, intensively managed wildland resource landscapes, or utility corridors. The more urban settings may be dominated by structures with the natural elements playing an important, but visually subordinate role. Trail users may constantly be in view of culturally changed landscapes. Motorized access or crossing of the trail may be more frequent than one-half mile intervals. Developments along the trail may include trailheads, parking facilities, and private services.

Campgrounds along these segments of trail may be highly developed with facilities including flush toilets, wash basins, and showers. User interaction may be moderate to high along the entire trail segment. The primary objective here is to provide the user with a safe continuous trail link between other ROS class segments. These sections of trail will generally be as short as necessary to allow passage across or under highways and railroads or passage through developed areas. Private property or safety considerations may dominate local alternatives requiring fencing of rights-of-way, use of cattle guards, and gates. In some situations, constructed barriers to prevent motor vehicle trespass will be present. Signing for safety, interpretation, and regulation may be frequent.

If either of the BLM Hauser Mountain or USFS Hauser Wilderness Study Areas were designated wilderness, they would be assigned to the "Primitive" ROS class. This class provides for maximizing feelings of physical achievement and minimizing feelings of regulation, with minimal interactions between users and maximum opportunity for solitude and testing of outdoor skills.

f. Safety

Highway Crossings: State Highway 94 crosses the study area along an east-west line approximately two miles north of the International Border. Each of the trail alternatives cross this two-lane highway one time. All of these crossings would be at highway level requiring hikers and equestrians to walk directly on the road surface.

Highway use volume, highway travel speeds, and the physical characteristics of each highway crossing are important considerations in safe highway/trail crossing design. Highway use estimates have been obtained from average daily traffic counts complied by the California Department of Transportation (CalTrans). The average daily traffic count for the section of Highway 94 west of Highway 188 (Tecate Road) is 1750 vehicles (Alternative A). The average daily traffic count for Highway 94 between Tecate Road and Campo is 1,150 vehicles (Alternatives B, C, Proposed Action, D, and D-1).

According to CalTrans, a safe pedestrian/equestrian crossing should afford an individual an unobstructed view of 550 ft in both directions down the road from a point eight feet away from the roadway in an area where the predominating speed is 55 miles per hour.

Throughout much of the study area, Highway 94 is a narrow, winding road with limited shoulder width, high vegetation frequently at road's edge, and frequent steep cuts and fills. The location of safe highway crossings thus constitutes an important factor in trail alignment.

Railroad Crossing: The San Diego and Arizona Eastern Railroad passes through the study area near Campo. Alternatives D and D-1 cross a single set of tracks one time. Currently, approximately seven trains pass through the area per week, though this may increase to approximately 21 trains per week (3 per day) in the future. Trains at the crossing area commonly travel between 20 and 30 mph (30 mph is the speed limit). Due to the lack of bridges or culverts large enough to accommodate hiking and equestrian use, an "at grade" crossing would be required. Trail users at the crossing point would have an unobstructed view of 1000 ft to the north and 2500 ft to the south at a distance of 10 ft from the tracks.

Trail Use of Road: All of the alternatives make use of the shoulder of short sections of road. Proposed alignment A uses Highway 188 (Tecate Road); B and C use Highway 188, Thing Road, and private roads; D and D-1 use Forrest Gate Road. Highway 188 has an average daily traffic count of 4150 vehicles in the Border area. The other roads are relatively lightly used.

Fire: Chaparral is highly flammable and dangerous under extreme weather conditions. During the normal fire season, which typically lasts at least nine months, chaparral is a fire fuel noted for an "extreme" rate of spread and a "high to extreme" resistence to control.

On Hauser Mountain, a moderately heavy fuel buildup has occurred because the area has not burned in at least 24 years. The last recorded fire was in 1958. The fuel conditions on Hauser Mountain and, to a somewhat lesser degree, the other lands utilized by the proposed trail alignments pose a constant threat to trail users and nearby private property.

Border Considerations: Illegal immigration and drug smuggling activity along the United States - Mexican Border presents an operational problem unique to this segment of the Pacific Crest Trail.

The Border environs near Tecate is an area of traditionally high use by aliens and drug smugglers. Sections of trail away from established roads or border facilities in this area may also be used by aliens or smugglers. Illegal Border traffic is less frequent in the Campo area, though it does occur. The potential for dangerous confrontations, e.g., personal injury and/or theft of personal property, does exist everywhere in the study area. Surveillance by the Border Patrol is concentrated between State Highway 94 and the Border. The Border Patrol will closely monitor trail use in this area. This could lead to questioning and possibly the searching of trail users by Border Patrol agents.

A common misconception is that a trail ending at a manned border crossing will necessarily have the fewest conflicts with Border Patrol and alien activity. In reality, the problem is much more complex, and the entire trail alignment within the vicinity of the Border must be considered within the context of travel patterns by aliens and smugglers.

2. Socio-Economic Factors

The study area is located within San Diego County which has a population of about two million. Most of the county's population resides in the coastal area approximately 50 miles west of the study area. The population of the study area itself is estimated to be 4,000. Immediately south of the Border is the town of Tecate, Mexico which has a population of approximately 20,000.

Populations of communities near or adjacent to the study area are:

Tecate	90
Campo	1200
Potrero	300
Boulevard	420
Dulzura	490
Jamul	1800

Information on the study area's local economy was obtained from a census conducted in 1975. Census tract 211 is the San Diego County Mountain Empire Subunit. The majority of the study area lies within this County planning unit.

HOUSEHOLD INCOME DERIVED PER INDUSTRY CATEGORY

Industry Category	Census Tract 211	San Diego County
Unemployed	12%	14.5%
Agriculture, Forestry, Fisheries	5.2	1.2
Mining/Construction	5.4	4.5
Manufacturing	2.0	7.5
Wholesale/Retail/Trade	3.6	6.7
Transporation, Communication, Utilities	5.2	3.9
Finance	.3	3.1
Services	9.7	17.3
Government	11.9	19.9
Retired	43.5	21.5
Total	100%	100%
Total Responding	919	489,883

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3. Land Use

a. County/Regional Use Designations

The study area is within the San Diego County Mountain Empire and Dulzura - Jamul Planning Subunits. Within these subunits, areas have been designated as: Residential/Country Towns (1), Public/Semi-Public Lands (22), National Forest (23), Agricultural Preserves (20), or Multiple Rural Use (18) (see Land Ownership Map 11).

Residential/Country Towns. This category applies to existing, small historically-established retail/residential areas serving surrounding low density rural areas. They are designated for generally one acre lots or more intensive use and are clearly removed geographically from existing or projected urban areas.

Public/Semi-Public Lands. This designation indicates lands generally owned by public agencies. This designation includes military bases, Indian Reservations, cemeteries, public parks, County airports, and other public and semi-public ownership. Any proposal for private development within this designation will be reviewed by the appropriate agency to assure that there will be minimum adverse affect on that agency's property or plans for that property.

National Forest. This designation indicates the planned boundaries and land holdings of Cleveland National Forest.

Agricultural Preserve. These designations promote agricultural use as the principle and dominant use. Uses that are supportive of agriculture or compatible with agricultural uses are also permitted. Lot sizes and overall population densities will vary based on the suitability of the individual parcels.

Multiple Rural Use. This is a non-urban residential designation which provides for areas not intended to develop at urban densities. Urban level standard will not apply and urban level services will not be provided. Commercial uses may be permitted to serve the needs of the residents. The Multiple Rural Use designation is applied in areas with one or more of the following characteristics: not highly suited for intensive agriculture; rugged terrain; watershed; desert land; lands susceptible to fires and erosion, lands which rely on groundwater for water supply; and any other environmentally constrained areas. Parcel sizes of 4, 8, or 20 acres are required depending on slope, and the criteria established in the County Groundwater Policy which may require up to 40 acre parcels. Other than a single-family home on an existing lot, it is not intended that any development occur unless the proposed development has been carefully examined to assure that there will be no significant adverse environmental impacts, erosion and fire problems will be minimal, and no urban levels of service will be required.

b. 500 KV Transmission Line

Arizona Public Service (APS) and San Diego Gas and Electric (SDG&E) propose to construct and operate a transmission line to interconnect the electric power networks of APS, SDG&E, the Imperial Irrigation District (IID), and Mexican sources. This 500 KV steel lattice tower transmission line will cross the study area near the International Border. (See Map 3).

c. Private land

The National Scenic Trails Act of 1968 (Section 7(a)) provides the following policy with respect to the use of private land and adjacent land management:

> In selecting the rights-of-way, full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for that specific area in order to insure continued maximum benefits from the land....

Further clarification of policy was later provided by the PCNST Comprehensive Plan:

> In general, the trail across private lands is viewed as segments necessary primarily to maintain continuity of the trail rather than to provide access to recreation opportunities on private land....Recreation opportunities on private land are generally confined to riding and hiking the trail and viewing resource management or other cultural activities...This would normally require only the minimum width right-of-way for the trail.
>
> In situations involving residential, commercial, or industrial development, the purpose of the trail is to get the traveler through the safest way with the least impact on private landowners.

In regard to land acquisition, there is no limit on the amount of private land that may be acquired with consent of the landowner. However, if the land is to be acquired through condemnation, the Act limits the amount of land that may be acquired to that "reasonably necessary to provide passage across such land," up to a maximum of 125 acres per mile. Generally, in the Hauser segment, the minimum land and rights necessary to construct and maintain a pathway will be required. Additional lands for campsites, access to water, scenic easements, etc. will not be acquired, and normal access easements will be confined to a 30 foot width (15 feet on either side of the trail centerline).

Private property must be crossed to complete the Hauser Segment, regardless of which alternative is selected. (See Land Ownership Map 11). The proposed trail alignments would traverse both developed and unimproved private lands where current uses include commercial and residential sites, livestock, grazing, and open land for speculation purposes.

Increased development of certain areas within the study area is also anticipated. Several landowners adjacent to the proposed alignments have indicated future plans to develop their properties for residential use. Other individuals have commented on additional development plans which include:

(1) Increased residential development of private lands north of State Highway 94 in the Big Potrero and Long Potrero and in the hills to the east of these valleys;

(2) Increased commercial and industrial development in Tecate, California; and

(3) The construction of a mobile home park along Grapevine Creek northeast of Tecate.

Other concerns have been expressed by property owners living in the vicinity of the proposed trail. Private landowners share the concerns of fire risk, litter, vandalism, pollution, and liability for accidents occurring where the trail crosses their property. Several landowners have also expressed the concern that illegal aliens would make use of the trail.

d. Public Land

(1) Escondido - Border Planning Unit (BLM)
The public lands within the study area are part of the BLM's Escondido - Border Planning Unit. Under the guidance of the Escondido - Border Planning Unit Management Framework Plan (MFP) a primary objective of the scattered parcels surrounding Hauser Mountain is to consolidate the land pattern to enhance the Management Program. This

could best be accomplished through a land exchange. Transfer of lands to Cleveland National Forest, San Diego County, or disposal of property to private individuals are possibilities currently under study by BLM and the Forest Service. Under the MFP, the Hauser Mountain subunit is to be managed for its soil, watershed, and recreational values. Currently, Hauser Mountain is used primarily for livestock grazing and limited recreational purposes.

(2) Livestock Grazing

Two grazing allotments are found on the public lands within the study area. (See Grazing Allotment Map 14). The 8,594 acre Potrero Allotment is authorized for 726 AUMs (all active). The Potrero lessee has a year-long grazing license for approximately 60 head of cattle. The 2,952 acre Hauser Mountain Allotment is authorized for 66 AUMs (all active). The grazing license is for 11 head of cattle for 6 months (winter through spring).

(3) Minerals

The study area does not contain any known minerals of commercial value. The potential is low and no mining claims have been located near any of the proposed trail alignments.

(4) Cleveland National Forest

The northern portion of the study area is within the Cleveland National Forest. Cleveland National Forest is operated under a multiple-use philosophy and supports a diversified program of natural resources management.

4. Cultural Resources

A cultural resource record search by San Diego State University revealed that nine cultural resource surveys have been conducted in the study area. These studies recorded over 40 separate cultural resource sites in the vicinity of the alternative trail alignments. This data suggests that additional sites are present, reflecting the archaeological sensitivity of the region. Many additional cultural resource values are expected to be present.

The prehistoric resources present can be divided into different site type categories. The following is a brief general description of the more common sites found:

Campsites: Areas of permanent habitation (villages) and temporary camps. These would tend to be located near water and near utilized resources, and would contain midden and a diversity of artifacts. They could represent occupation over a long period of time.

Lithic Scatter: The occurrence of flaked stone tools and flakes, from isolates to large dense scatter. Generally workshop areas, sometimes associated with quarries.

Milling Sites: These include isolated or groups of mortars or metates, bedrock or portable, used to process some type of plant resources, not necessarily associated with the resource.

Highest site densities in the study area are the valley/riparian zones near Tecate, Potrero, and Campo. Other locations with high site probability are the woodland oak and/or riparian habitats found on Hauser Mountain and Hauser Canyon. Conversely, regions covered with chaparral growth hold much less potential for cultural resources.

To the southwest of the study area lies Tecate (Cuchama) Peak. This is a sacred Kumeyaay mountain of extreme tribal importance. To this day, Kumeyaay Native Americans continue to hold tribal initiation ceremonies at Tecate Peak. Portions of the mountain are being nominated to the National Register of Historic Places.

IV. CONSEQUENCES OF THE PROPOSED ACTION AND ALTERNATIVES

Analysis of impacts centers chiefly upon those resources described in Chapter III which would receive the most significant impacts. Resources which will not be affected (topography and climate) are not addressed in this chapter. In some cases, limitations on impact assessment occur due to a lack of data. In such instances, knowledge of the area and professional judgment were relied upon to infer environmental consequences of management alternatives.

A. Non-Living Components

1. Water Resources

Very few if any springs will be available for recreational use along any of the routes. For this reason, minimal effects to quality or quantity of surface water resources are expected. Minor localized increases in sediment load and siltation will result from horse and foot crossings of streams.

2. Soils

Over 17 different soil types are found along the route alternatives. An interpretation for the use and construction of recreational foot and horse trails over these soils can be found in the US Department of Agriculture's Soil Survey, San Diego Area, California, Volume II. Soils are rated in that survey according to the kind and degree of limitation(s) associated with soil construction, maintenance, and use. Common limitations defined in this survey are slope, rockiness, soil texture of the surface layer, drainage and soil permeability.

The limitations for each soil in regard to suitability for riding and hiking trails are rated slight, moderate, and severe. Slight means that only normal site inspection and precautions during planning and construction are required. Development costs should be somewhat less than average. Moderate means that careful site inspection, more than normal precautions and above average expenditures are required to overcome the limitations. Severe means that development costs are high and more intensive study and precautions will be required. In many instances, the esthetic value or location of a site will justify the expenditures required to overcome moderate or severe limitations.

The following table shows the miles of trail with slight, moderate, and severe limitations for each alternative. In instances where the route alternatives follow a roadway, the soil type adjacent to the road was used.

MILES OF TRAIL PER SOIL LIMITATION CATEGORY

Alternative	Slight	Moderate	Severe	Total Miles
A	.8 (4.3%)	1.6 (8.4%)	16.6 (87.3%)	19
B	1.0 (9.5%)	4.1 (39%)	5.4 (51.5%)	10.5
C	1.2 (8.6%)	5.3 (37.8%)	7.5 (53.6%)	14
P	0 (0%)	4.4 (36.7%)	7.6 (63.3%)	12
D	2.4 (21.8%)	3.0 (27.2%)	5.6 (51%)	11
D-1	2.4 (24%)	2.2 (22%)	5.4 (54%)	10

Figures in parentheses indicate the percentage of total trail mileage in each category.

B. Living Components

1. Vegetation

ALTERNATIVE

A

1) The major impact will result from trail construction activity. As stated in the General Design Criteria for the PCT, the trail tread will be from 18 to 24 inches wide, with brush and limbs cleared to a width of 8 feet and height of 10 feet. These dimensions dictate the direct removal of approximately one acre of vegetation per trail mile. This will result in the loss of approximately 19 acres of vegetation for this alternative.

2) Browsing and grazing by horses and pack animals could impact native vegetation.

3) Non-native plant species may be introduced by feed packed in for horses and/or packstock, or from droppings left on the trail.

4) After construction, soil compaction by horses and foot traffic will prevent regeneration through the center of the trail. However, along the edges, grasses and herbs will develop. These pioneer species would provide both food for wildlife and fuel for potential fires.

5) Wood gathering of live or dead material along the trail (especially at popular camping spots) could be harmful to tree and shrub populations.

6) Additional vegetation may be lost due to switchback-cutting and new trails created by wandering hikers.

7) Vegetation loss will occur from excessive camping or equestrian activity in certain areas.

Alternative	
B	Impacts will be similar to those described for Alternative A, except that 10.5 acres of direct vegetation loss will occur.
C	Impacts will be similar to those described for Alternative A, except that 14.0 acres of direct vegetation loss will occur.
P	Impacts will be similar to those described for Alternative A, except that 12.0 acres of direct vegetation loss will occur.
D	Impacts will be similar to those described for Alternative A, except that 11.0 acres of direct vegetation loss will occur.
D-1	Impacts will be similar to those described for Alternative A, except that 10.0 acres of direct vegetation loss will occur.

2. Wildlife

While individuals of less mobile species or those with dens or nests along the trail may be lost, direct loss of wildlife through trail construction is not expected to be significant. The improved access created by the trail may increase hunting, shooting, and illegal ORV activity. All could have a negative impact on wildlife through direct injury or because of increased human activity and noise.

Additionally, impacts may occur from the trail and its associated uses in instances where it is located in or near sensitive wildlife habitat. Areas such as riparian zones, springs, and oak woodland/meadows provide crucial habitat for a variety of wildlife. However, all of the trail route alternatives predominately pass through chaparral which is not a highly sensitive habitat type. Route alternatives do cross water sources and woodland openings, but overall they encounter relatively few sensitive areas and should result in only minimal impacts to wildlife population stability.

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Alternative	
A	1) This alternative crosses several small intermittent streams which may be used by wildlife during the wetter seasons. 2) Alternative A follows Potrero Creek for approximately 0.3 miles. Although riparian areas are generally sensitive, the seasonal nature of this stream and its close proximity to Highway 94 may diminish somewhat the value of Potrero Creek to wildlife. 3) Some impacts may occur in Hauser Canyon due to the presence of the trail. Hauser Canyon is thought to have "good" populations of both mule deer and mountain quail. Increased human activity could possibly cause some initial disturbances to these wildlife populations.
B	1) Two-thirds of this route passes through the dry chaparral foothills west of Hauser Mountain. Minimal impacts to wildlife are expected. 2) Some minor impacts to mule deer populations inhabiting Hauser Mountain are possible. Due to a lack of public access, very little human disturbance currently exists on the mountain. The trail and its associated uses and abuses may cause some initial intrusions which could effect deer populations. The route will not cross any crucial water sources and its construction will not result in any appreciable loss of deer habitat.
C	1) Most of the route is through dense, mature sands of chaparral. Minimal impacts to wildlife are expected. 2) Same as number 2, Alternative B.
P	Same as Alternative C.
D	1) On the southeastern half of Hauser Mountain, the alternative passes near a wet oak woodland/wet meadow where wildlife sensitivity is thought to be high. 2) Same as number 2, Alternative B.
D-1	Same as Alternative D.

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3. Rare, Endangered, and Sensitive Plants and Animals

a) Plants

Several sensitive plant species are found within the study area. Generally, these plants are "edge" species found in open areas along highways, stream banks, or woodland clearings. Most of the recorded sites of special status plants in the study are in cleared areas adjacent to Highway 94.

Alternative	
A	This route crossses Highway 94 within 0.5 miles of locations where several sensitive plant species have been recorded previously (*Haplopappus junceus*, *Hemizonia floribunda*, *Lathyrus spendens*, *Astragalus deanei*, *Caulanthus stenocarpus*, *Monardella hypoleuca* ssp. *lanata*, and *Chamaebatia australis*).
B	1) Two sensitive species, *Haplopappus junceus* and *Hemizonia floribunda*, have been recorded within a mile of where this alternative crosses Highway 94. 2) *Hemizonia floribunda* is also known to occur in clearings and *along the "edges"* of chaparral on Hauser Mountain.
C	1) Two sensitive species, *Lathyrus splendens* and *Geraea viscida* have been recorded within a mile of where this alternative crosses Highway 94. 2) Same as number 2, Alternative B
P	Same as Alternative C.
D	1) Special status plants *Dudleya abramsii* and *Solanum tenuilobatum* have been recorded along Highway 94 in the Campo area near where this alternative would cross. 2) Same as number 2, Alternative B.
D-I	Same as Alternative D.

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b) Wildlife

Alternative		
A	1)	Potential raptor eyries are located in cliff and woodland areas. This route passes through more cliff areas than the other alternatives. If sensitive raptors are present, trail construction and the subsequent increased human disturbance due to trail use along this route could cause significant impacts during nesting and roosting periods.
B	1)	Similar situation as described in number 2, alternative A, except that this alternative passes near fewer potential raptor eyries.
C	1)	Same as alternative B.
P	1)	Same as alternative B.
D	1)	Same as alternative B.
	2)	A nesting pair of the Least Bell's Vireo was recorded along Campo Creek in 1977. If the Least Bell's Vireo is found in the vicinity of this alignment along Campo Creek, trail construction could impact breeding during nesting periods.
D-1	1)	Same as alternative D.

C. Human Interest Values

1. Recreation

a. General

Alternative		
A	1)	This alternative is expected to have minimal influence upon hunting.
	2)	The trail would greatly enhance horseback riding, hiking, and backpacking opportunities within the study area.
	3)	Potential unauthorized ORV use is possible as this alternate begins/ends in a town and crosses both primitive roads and a major highway.

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Alternative		
B	1)	Same as number 1, alternative A.
	2)	Similar to number 2, alternative A. The passage of the trail through Potrero County Park may encourage the development of an equestrian campground and related facilities in the park. This would help to accommodate the increasing need for public equestrian facilities in San Diego County.
	3)	Establishment of the PCT through Potrero County Park may also help to encourage use of the park, which has been termed an "underutilized" County facility.
	4)	Similar to number 3, alternative A. Additional conflicts are possible on this route if legal public vehicle access into the Hauser Mountain area is obtained in the future.
C	1)	Same as number 1 and 2, alternative A.
	2)	Same as number 4, alternative B.
P	1)	Same as alternative C.
D	1)	Same as alternative C.
D-1	1)	Same as number 1 and 2, alternative A.
	2)	Similar to number 3, alternative A. Additional conflicts are possible on this route if public vehicle access is improved into the Hauser Mountain area, but to a somewhat lesser extent than alternatives B, C, P, and D. This route, on the eastern half of the Hauser Mountain, crosses fewer ORV routes and would be expected to have fewer conflicts.

b. Wilderness

Each route alternative passes through either BLM or Forest Service areas currently under review for possible wilderness designation.

The routing of the Pacific Crest Trail through the area would provide the opportunity for a primitive type of recreation experience stressing adventure and challenge. This type of use is compatible with an area designated as wilderness. In fact, the trail could actually enhance wilderness values by making the area more accessible to non-vehicular recreational uses.

c. Visual Resource Management

Since the trail will be constructed to meet PCT guidelines for location and design, overall adverse impacts to visual quality will be minimal. As proposed, all route alternatives would meet the requirements of a Class II VRM area. They would also meet the Class I standards should either of the wilderness study areas become designated wilderness.

Visual impacts to the area from trail construction and misuse must be considered from two aspects: (a) the impacts to passing motorists and others removed from the area, and (b) the impact to trail users and non-users in the immediate area.

The adverse impacts to scenic quality would include the linear contrast created by the presence of the trail on the landscape and the on-site esthetic losses which would accompany construction and use of the trail.

Alternative		
A	1)	On site esthetic losses incurred during the construction and use of the trail include erosion of soil and visible scars to rocks and soil created by the use of construction equipment. The disposal of waste rock and soil, and to some extent, brushed vegetation would be visible if done indiscriminately or in areas of steep, sparsely vegetated slopes.
	2)	Little impact to scenic quality would be evident from the linear contrasts created by the presence of the trail. Views to the trail from Highway 94 would be minimal due to the shortness of the segments visible, and the screening of the trail from view due to vegetation height, topographic features, and the distance of the trail from the road.
	3)	The most significant impact created by trail line contrast will be visible to trail users and others in the immediate area of Hauser Canyon. Here, this alternative will gradually cut across the steep natural contours of the canyon wall. Line and color contrast will be evident, but texture and form differences will be minimal.
B	1)	Same as numbers 1 and 2, alternative A.
	2)	Similar to number 3, alternative A, except that the impact created by trail line contrast will be reduced in Hauser Canyon due to the shorter segment of trail across the canyon wall.

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Alternative	
C	Same as alternative B.
P	Same as alternative B.
D	Same as alternative B.
D-1	Same as alternative B.

d. Pacific Crest Trail

The following tables address how the various route alternatives will influence the "PCT experience" and how they will meet the basic amenity needs of the trail user. Scenic considerations, potential for maximizing outdoor recreation opportunities, availability of trailside water, campsites, shade, and the facilities and services available at each trailhead are important criteria.

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1) Trailhead Facilities and Services

Alternative	A, B, and C	P	D and D-1
Location	Tecate	2.5 miles east of Tecate.	1.7 miles southeast of Campo.
Access	Via Highway 94 and 188 to Tecate.	No complete road access. Partial access from Tecate along private dirt road.	Via Highway 94 to Campo, then private dirt road south of Forrest Gate Road.
Public Transportation	Public bus; daily trip, 3 days a week from the San Diego metropolitan area. Bus stops at trailhead.	Same as alternatives A, B, and C. Bus stops at Tecate 2.5 miles from trailhead.	Public bus; 1 daily trip, 5 days a week from the San Diego metropolitan area. Bus stops at Campo, 1.7 miles from trailhead.
Nearest Campground	Potrero County Park 4.5 miles north of Tecate.	Same as alternatives A, B, & C.	Privately owned campground in Campo.
Nearest Horse Stable	None identified in Tecate, possibly private facilities in the Potrero area.	Same as alternatives A, B, & C.	Short-term arrangements possible with local equestrian club in Campo area.
Horse Feed	Tecate	Tecate	Campo
Groceries	Tecate	Tecate	Campo
Post Office	Tecate	Tecate	Campo
Border Crossing into Mexico	Tecate	Tecate	No legal crossing at Campo. Nearest border crossing at Tecate. Public bus between Campo and Tecate available 3 days a week (1 daily trip each way).
Water	At trailhead (Tecate)	Tecate	Campo

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2) Trail Profile

Alternative	A (19 miles)	B (10.5 miles)	C (14 miles)
Views	Excellent ridgetop panoramic vistas and impressive views through Hauser Canyon.	Mostly views from foothills, frequently overlooking rural development; good vistas from Hauser Mountain.	Good mountain crest views from a position of height most of trail.
Trail Environments	Good diversity; Tecate, chaparral ridge, riparian zones, and deep canyon.	Some diversity though mostly chaparral foothills; briefly Tecate, mountain top and canyon.	Tecate, ridges, mountain top plateau, and short section across Hauser Canyon.
Terrain Difficulty	Frequent elevation changes. Periodic steep grades.	Moderate changes of elevation. Brief steep grades across Hauser Canyon. Least demanding of alternatives.	Some steep grades; crosses Hauser Canyon.
Water	No developed water source. Unprotected water sources may be available in Hauser Canyon on a seasonal basis. These sources are unreliable and unprotected. Distance between sources: 22.5 miles.	Developed water source at Potrero County Park 4.5 miles north of Tecate trailhead. Distance between sources: 10 miles.	No developed water source. Distance between sources: 17.5 miles.
Shade	Little availability, some in Hauser Canyon.	Some through Hauser Mountain and Canyon.	Some through Hauser Mountain and Canyon.
Campsites	Good availability in Hauser Canyon.	Potrero Co. Park and some availabiity on Hauser Mountain.	Some good campsites on Hauser Mountain.

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2) Trail Profile (continued)

Alternative	P (12 miles)	D (11 miles)	D-1 (10 miles)
Views	Good mountain crest views from a position of height most of trail.	Very good panoramic vistas from Hauser Mountain. Good view looking north from trailhead.	Same as D.
Trail Environments	Rural Tecate, ridges, mountain top plateau and a short section through Hauser Canyon.	Diverse; pastures Campo, riparian areas, mountain ridges, small woodland meadows, and briefly, Hauser Canyon.	Same as D.
Terrain Difficulty	Some steep grades, with steep climbs crossing Hauser Canyon.	Mostly moderate difficulty with a few prolonged climbs on steep grade.	Similar to D, but with an easier hike across Hauser Mountain.
Water	No developed water sources. Distance between sources: 17.5 miles.	Water available in Campo 1.7 miles north of trailhead. Distance between developed sources 12.8 miles.	Water available in Campo 1.7 miles north of trailhead. Distance between sources: 11.8 miles.
Shade	Some through Hauser Mountain and Canyon.	Available along Campo Creek, on top of Hauser Mountain and in bottom of canyon.	Same as D.
Campsites	Some on Hauser Mountain.	Privately owned Campo Lake Campground. Good availability on southeastern section of Hauser Mountain.	Same as D.

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e. Safety

Alternative		
A	1)	Highway Crossings. This alternative has an adequate crossing of Highway 94. Users have an unobstructed view down the road for distances which approximate CalTrans recommendations. Moderately heavy weekend traffic between Tecate and San Diego increases the potential hazard of this crossing on certain days.
	2)	Trail Use of Roads. This alternative utilizes approximately 0.6 miles of Highway 188 road shoulder to travel north from the border at Tecate. The narrow road shoulder combined with the fast moving high volume weekend traffic on this road poses a significant hazard for the trail user. CalTrans estimates the average daily traffic count for Highway 188 to be 4000 vehicles. The majority of this use is on weekends.
	3)	Fire. This route passes through substantial amounts of vegetation historically considered extremely hazardous.
	4)	Border Considerations. Potentially hazardous confrontations between trail users and illegal aliens are unlikely along this route in the immediate vicinity of the Border. This alternative leaves the Border in a relatively direct manner through Tecate along an established highway. However, the route followed by this alternative north of Highway 94 is one of the more heavily used corridors utilized by illegal aliens travelling north.
B	1)	Highway Crossings. This alternative has an adequate crossing of Highway 94. Trail users have an unobstructed view down the road for distances which approximate CalTrans recommendations.
	2)	Trail Use of Road. A short section (0.1 miles) of Highway 188 immediately north of the border customhouse is used. Here road traffic is slow and the road shoulder is wide. This alternative also follows Thing Road through Tecate. Traffic along this road is generally "light" and slow moving.
	3)	Fire. Similar to alternative A, number 3, except that the location of this route is within close proximity to more residential development making the potential risks higher due to the greater chance of accidental fires and greater likelihood of property damage. However, this area would also have better access, and fire suppression crews would be better able to respond.

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4) Border Considerations. Routes such as this one, which parallel the International Border in the vicinity of Tecate, have a greater potential for trail user/alien confrontations. There is also a greater likelihood for trail users to be contacted by Patrol agents who have sensing devices positioned in this area.

C

1) Highway Crossing. Same as alternative B.

2) Trail Use of Roads. Same as alternative B.

3) Fire. This route passes through extensive portions of chaparral which is highly flammable and dangerous under extreme weather conditions. Approximately one half of this route is over Hauser Mountain which has a moderately high fuel buildup.

4) Border Considerations. Similar to alternative B, number 4, except that potential for confrontations may be greater due to the additional mileage along which the trail would closely parallel the border, and the passage of the trail within close proximity (0.1 miles) of a small Mexican neighborhood situated on the border.

P

1) Highway Crossing. Same as alternative B.

2) Trail Use of Road. None.

3) Fire. Same as alternative C.

4. Border Considerations. The trailhead for the Published Route is located at the border on an isolated parcel of public land 2.5 miles east of Tecate. Potential for hazardous confrontations between trail users and illegal aliens would be a concern. Cars left unattended at a trailhead at this location would be particularly susceptible to vandalism and theft.

D

1) Highway Crossing. Same as alternative B.

2) Trail Use of Road. This alternative uses a short section of Forrest Gate Road south of Campo. Traffic on this County road is generally "light" and slow moving. Road shoulder width is adequate.

3) Fire. Same as alternative C.

4) Border Considerations. Less potential for hazardous confrontations occur with this alternative because fewer illegal crossings are made in the Campo area as opposed to the Tecate environs. There are no large population centers along the border south of Campo like there are at Tecate. Both the US Border Patrol and US Customs have recommended an alignment through Campo because it would be the most direct route from the border and would interfere the least with their operations and sensors. However, some illegal crossings do occur and confrontations in the back country are possible along this route as they are possible along any of the alignments within the study area.

5) Railroad Crossings. This "at grade" railroad crossing poses no significant hazard to trail users. Currently, traffic on the line is approximately 1 train daily. Trail users have adequate visibility down the tracks in either direction.

6) Rancho Del Campo. A short segment of this alignment will follow the boundary of the Rancho Del Campo juvenile detention center in much the same manner that the informal temporary route of the PCT does today. No incidents between trail users and individuals detained at the center have been identified. Correctional staff at Rancho Del Campo have reported no past problems with PCT users nor do they anticipate many problems in the future (informal conversation).

D-1	Same as alternative D.

2. Socio-Economic Factors

Alternative	
A	The PCT is expected to have a negligible effect upon the border-oriented economy of Tecate.
B	Same as alternative A
C	Same as alternative A
P	Same as alternative A
D	The PCT will have a minor influence. Small private businesses such as the Campo store and the Campo Lake Campground may benefit during the higher trail use periods in the spring and summer.
D-1	Same as alternative D.

3. Land Use

a. County/Regional Use Designations

None of the proposed routes conflict with any Federal, State, or County land use policies.

b. 500 KV Transmission Line

The development and use of the PCT should have a negligible impact upon the proposed transmission line. The line will detract from the visual quality of the trail regardless of the route selected. The overall esthetic impact may be greatest in the case of Alternatives D and D-1, which terminate in a quiet rural setting at the Border fence less than 1/2 mile south of the powerline alignment.

c. Private Land

This section addresses two issues associated with the passage of the PCT over private land: (1) the recreational experience conflicts anticipated on portions of the trial over private land, and (2) the adverse effects of the trail upon adjacent landowners or users and their oprations.

In sections of the trail over private land, little opportunity exists to control adjacent land uses. Incompatible uses which may detract from the integrity of the trail environment, such as commercial or industrial development, growth in housing, subdivision, and road construction could substantially change the trail's character and appeal over the years. A more immediate impact is the feeling of confinement and the limitation of recreational opportunities private land sections of trail impose upon the user. Over private land, trail users would be restricted to trail easements (which are generally only 30 feet in width), and trail users may feel confined by "no trespassing" messages from landowners).

The following table is an estimate of the private versus public land each alternative would utilize:

Linear Trail Mileage

	Private	Public				Total
Alternative		BLM	USFS	County	Roads	
A	1.8	9.1	7.5	0	0.6	19.0
B	5.5	4.0	0	0.3	0.7	10.5
C	3.4	9.9	0	0	0.7	14.0
P	1.3	10.0	0	0	0.7	12.0
D	1.0	7.8	0	1.8	0.4	11.0
D-1	1.0	6.8	0	1.8	0.4	10.0

Alternative		
A	1)	This alternative makes good use of available BLM and Forest Service lands, although increased development of Tecate and private parcels along Potrero and Grapevine Creeks could influence the trail eventually.
	2)	This route will require 1.8 miles (6.55 acres) of right-of-way acquisition. Six separate private parcels with four different owners are affected.
	3)	Some owner opposition has been expressed.
B	1)	Significant conflicts are likely due to the high development potential of the land east of Big and Long Potrero Valleys. Little opportunity to protect the integrity of the trail will exist in this area (or in Tecate) if anticipated development should occur.
	2)	Seventeen separate parcels and landowners will be directly impacted by this route proposal. Approximately 5.5 miles of easement or 20.02 acres of right-of-way acquisition will be required.
	3)	Some landowner opposition has been expressed. Two of the landowners who have denied permission to enter their lands for study purposes expressed the opinion that the trail would be incompatible with their plans to develop residences on or subdivide their property. Many landowners did not respond to BLM's request for permission to enter their lands for study purposes.
C	1)	This route is predominately on public land and the preservation of a high quality trail experience could be maintained. Increased development of Tecate may adversely effect the trail in the future.
	2)	This route would directly involve 10 separate parcels and owners requiring 3.4 miles (12.37 acres) of right-of-way acquisition.
	3)	Some landowner opposition has been expressed, as well as some support.
P	1)	Similar to alternative C, number 1.

	2) Six separate parcels and landowners requiring approximately 1.3 miles (4.73 acres) of private easement would be necessary to complete this route. 3) Some landowner opposition has been expressed as well as some support.
D	1) This route makes good use of both County and Federal lands. No major development plans have been identified for the Campo area, and few conflicts are foreseen. 2) One mile or 3.65 acres of right-of-way easements across private land will be required. Five separate parcels with five principle owners are involved. This route would produce fewer adverse impacts to private landowners than alternatives A, B, C, or P because (1) less private land is involved, (2) topography permits the trail to remain close to existing property lines, (3) illegal alien use of the trail would be light, and (4) the trail would not conflict with existing or anticipated land uses.
D-1	1) Same as alternative D.

Short of not building the trail, there is no feasible way to completely eliminate adverse impacts to adjacent private landowners. The potential for increased fire risk, litter, vandalism, disturbance of private lifestyles, liability, and illegal alien use are important considerations in selecting a right-of-way which will minimize the adverse effects upon landowners.

d. Livestock Grazing

All of the alternatives pass through small private and public land livestock operations. Possible recreation induced impacts include: vandalism to gates and fences, gates left open, use of watering sources by trail users, and hazards associated with increased fire risk.

Most of the rangeland crossed by the alternatives is on BLM public lands within the Potrero and Hauser Mountain Allotments. All of the trail alternatives avoid watering sources and generally few fences are crossed.

e. Minerals

No mining claims are located along any of the proposed route alternatives. The study area does not contain any known minerals of commercial value. Though reservation of a PCT easement across public lands will protect the trail from impacts due to mining, it is expected that this will have little adverse effect on mining due to the limited potential of the area.

4. Cultural Resources and Native American Values

Alternative		
A	1)	Some Native American concerns have been expressed (during the public input phase of the analysis) due to this trail's proximity to Tecate (Cuchama) Peak, a sacred Kumeyaay mountain.
	2)	Two known cultural sites, one a probable prehistoric milling site, and the other a 19th century stage and telegraph route have been located on the tentative alignment for this alternative. In order to protect these resources, a minor reroute of this alternative would be necessary.
	3)	Other potentially sensitive areas such as Hauser Creek are encountered by this alternative.
B	1)	No known cultural sites have been recorded along the alignment for this alternative.
	2)	Much of this route passes through dense chaparral. Generally, these areas have low potential for the discovery of cultural sites.
	3)	Same as alternative A, number 3.
C	1)	Same as alternative B.
P	1)	Same as alternative B.
D	1)	Same as alternative B.
	2)	While no sites have been recorded, several locations along the route have potential for the discovery of cultural resources. The riparian area along Campo Creek, the small oak woodlands on Hauser Mountain, and Hauser Creek are all the kinds of locations where Kumeyaay temporary camps or acorn processing sites are possible.
D-1	1)	Same as alternative D.

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V. MITIGATING MEASURES

Water Resources

1. Stream crossings should be kept to a minimum.
2. Stream crossings and approaches should be made perpendicular to the channel rather than paralleling the stream for any distance.
3. Provide bridges or other similar type facilities to reduce foot and horse traffic in streams if increased sedimentation or stream bank erosion becomes a problem.

Soils

4. Trail slopes should not exceed 10% whenever possible.
5. Trail should be located as close as possible to ridgecrests.
6. Excavation should be limited to that necessary to establish and maintain a trail surface.
7. Trail widths should be kept to the allowable minimum.
8. Switchbacks should be designed to minimize the amount of excavation and cutback exposure. Cutbacks should be contoured, not vertical.
9. Open rock drains or metal culverts should be constructed to provide cross drainage when needed at channel crossings.
10. Where trail or other construction causes excessive soil disturbance prior to use or during operation, the disturbed area should be backfilled with rock and stablilized with vegetation, or other suitable surface protection provided.

Vegetation and Wildlife

11. Horseback riders should be required to pack feed for their horses to discourage grazing on native vegetation. Use of cube or feed pellets should be encouraged to lessen the potential for the introduction of new exotic plant species.
12. Construction crews should attend awareness sessions to acquaint them with the need to avoid impacts to vegetation and wildlife. Special attention should be given to insure the protection of sensitive plants and wildlife that are particularly susceptible to losses during construction activities.

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13. In riparian woodland zones, e.g., Campo Creek, Hauser Creek, and Potrero Creek, locate the trail in such a manner that a minimum of trees are cut.

14. To protect sensitive vegetation and wildlife habitat, route the trail so that it avoids crossing meadows or other natural openings.

15. Prohibit the use of open fires to reduce wildfire danger.

16. If possible, screen switchbacks with trees, brush, or natural topographic features to reduce switchback cutting. In problem areas, post signs requesting trail users to stay on the designated trail.

17. The trail should be routed so that it passes no closer than 0.25 miles to natural springs or seeps which are important to wildlife. If necessary, designate critical springs as wildlife waters and prohibit camping within 600 ft.

Endangered, Rare, and Sensitive Plants and Animals

18. During the most favorable growing season, conduct a special status plant survey along the selected alternative prior to trail construction. Reroute the trail as necessary to avoid special status plants.

19. Prior to trail construction, the segment of Alternative D/D-1 adjacent to Campo Creek should be field checked for the presence of the Least Bell's Vireo (Vireo bellii pusillus). If located, schedule trail construction during non-breeding periods, or route the trail in such a manner so that breeding activity is not disturbed.

20. Identify all active raptor eyries located along the selected trail alternative prior to trail construction. Reroute trail to avoid sensitive breeding locations.

Human Interest Values

a. Recreation

21. Should problems arise from conflicting recreation uses (e.g., hunting and motorcycle riding), signing which explains the significance of this trail and the dangers of such activities to both the trail and the hikers should be installed at trail access points. If necessary, barriers suitable to exclude motorcycles and four-wheel drive vehicles (while allowing the passage of equestrians and hikers), should be constructed at access points in problem areas. Regular ranger patrols of the trail should also be used as a deterrent to motorized vehicle use of the trail.

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b. Visual Resources

22. Motorized construction equipment should not be operated off the trail corridor proper.

23. All excavated soil and rock which is not used in trail construction should be disposed of only in areas where vegetation is dense and slopes do not exceed 20 percent.

24. Cleared vegetation should be removed from the vicinity of the trail.

25. Native materials should be used for construction and the trail should be designed to blend with the surrounding landscape.

c. Safety

26. Prohibit camping along the trail during specific high fire danger periods.

27. Post pedestrian/horse crossing signs along Highway 94 on east and westbound lanes 600 feet from the trail crossing.

28. Place whistleboards at appropriate distances from railroad crossings (Alternatives D and D-1) and place signs on the trail 100 ft. back from the crossing to warn trail users that a crossing with limited visibility lies ahead.

d. Private Lands

29. The managing agency should plan and carry out an intensive education program aimed at building positive relationships between landowners and trail users.

30. The managing agency should keep a high standard of maintenance on segments of trail adjacent to private land.

31. The managing agency should develop a monitoring and evaluation program on segments of trail surrounded by private land to identify potential problems so that corrective action can be taken prior to the development of a serious situation.

32. Rangers or other agency field personnel should frequently patrol private land segments of trail to exert a positive influence on all trail users.

33. In acquisition situations, minimize impacts to private landowners by: (1) routing the trail along existing private property lines, and (2) routing the trail away from developments. Work closely with each

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landowner to select the alignment having the least impact in each situation.

Livestock Grazing

34. The trail should be routed to avoid any livestock developments.

35. In locations where the trail crosses livestock fences, self closing gates should be installed.

Cultural Resources

36. Conduct a Class III cultural resource survey on the selected route prior to trail construction. The trail should be rerouted to avoid resources encountered during field work. If relocation is not feasible, mitigation through data recovery (collection) must occur.

37. If any cultural material is found during construction, all work should cease and the appropriate official should be notified. Work should not proceed until permission to do so is obtained from the responsible official.

38. At the trail terminus, develop an interpretive sign which stresses the need for trail user cooperation in the protection of cultural resources.

Native American Values

39. If Alternative A is selected, work closely with Native Americans to avoid sensitive areas near Tecate Peak.

VI. RESIDUAL IMPACTS

A. Water Resources

Due to topography, some stream crossings are necessary, resulting in some minor local increases in stream sediment load and siltation.

B. Soils

Trail construction will result in unavoidable removal of vegetation cover and the trail will become significantly compacted. The compaction and removal of vegetational cover will result in a small increase in runoff and subsequent erosion, even with proper trail design to minimize the problem.

C. Vegetation and Wildlife

Some unavoidable plant loss will occur due to trail construction and its subsequent use.

Small amounts of wildlife habitat will be disturbed or eliminated by trail construction and use.

D. Human Interest Values

1. Visual Resources

Some esthetic value may be lost with the intrusion of a line of cleared vegetation and soil.

2. Safety

Use of the road shoulder along Highway 188 (Alternative A) poses a significant hazard to both hikers and equestrians.

At grade highway (all alternatives) and railroad (alternatives D and D-1) crossings pose safety hazards which can be minimized, but not eliminated by adequate design and installation of warning signs.

Potentially hazardous confrontations between illegal aliens and trail users are possible.

There will be increased fire risk due to use along the trail. Even with the prohibition of open fires, fire risks will still be presented by non-complying individuals, camp stoves, and contained fires.

3. Land Use

Some adverse impacts (loss of privacy, increased alien traffic, off-road vehicle use related to illegal use of the PCT) may occur to private landowners and operations adjacent to the PCT, in spite of efforts to minimize them.

E. Cultural Resources

As yet unidentified cultural values may be lost as a result of construction activities or illegal collecting or vandalism following completion of the trail.

If Alternative A is selected, some unavoidable intrusions on sacred Native American areas in the neighborhood of Tecate Peak may result.

VII. SHORT TERM USE vs LONG TERM PRODUCTIVITY

ALTERNATIVE	
A	1) The establishment of the Hauser segment would provide a high quality riding and hiking opportunity over a vitally important section of the Pacific Crest Trail. As the southern most link in the PCT system, this segment takes on an added significance and an urgent need for timely completion. The trail would help to accommodate the ever-increasing demand for hiking and horseback riding areas in San Diego County. It would offer trail users a challenging and rewarding experience and a closer contact with nature. All of these attributes and human needs could be met by the short term use of the trail. 2) The generally non-consumptive nature of a riding and hiking trail should not have a significant impact upon the economic productivity of the area. The trail will generally not have a major impact on the use of adjacent public or private lands. 3) The trail should have a minimal influence on the long-term productivity of the bio-physical environment. Mutal productivity factors such as soil development, vegetative growth, and wildlife production should not be greatly impacted if proper mitigating measures are followed and trail use is regulated.
B	1) Similar to numbers 1 and 3, alternative A. 2) Maintaining a high quality trail environment will be more difficult over this route because it involves passage through extensive portions of private land. During the short term, the "good" quality recreation and scenic opportunities will remain as such, but they will be difficult to sustain. It is likely that much of the private land adjacent to this alternative will be developed and substantially changed. The narrow trail easement will not protect the integrity of the trail environment, and the recreation experience along the trail may deteriorate.

Alternative	
C, P, D, and D-1	Similar to Alternative A.

VIII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Few irreversible or irretrievable commitments of resources are anticipated with the establishment of the trail. Preliminary investigations of available archaeological, botanical, and wildlife data indicate that the proposed trail will have little potential for destruction of sensitive resources. Any cultural resources destroyed would be irretrievably lost, however.

The establishment of a PCT easement on public and private lands will greatly limit uses on a narrow corridor of land, but will have minimal overall impact to uses on adjacent lands.

IX. CONSULTATION AND COORDINATION WITH OTHERS

This Environmental Assessment was prepared by BLM in close coordination with the US Department of Agriculture, Forest Service. This coordination was necessitated both by the Forest Service's status as lead agency on the PCT project and by the transfer of responsibility for right-of-way acquisition, construction, and management of the Hauser Segment to the Forest Service with approval of a cooperative agreement between the two agencies.

An initial scoping and coordination meeting was held at the Supervisor's Office, Cleveland National Forest, San Diego, on March 16, 1982. In addition to representatives of BLM and the Forest Service, Clarence Coffin, representing the Pacific Crest Trail Advisory Council, and Rob Langsdorf of the Pacific Crest Trailblazers organization were present. At this meeting, four possible trail alignments in addition to the Federal Register published route were identified for study. Three of the alternatives (A, B, and C) ended at Tecate, while the remaining alternative (D) ended at the Border south of Campo.

It was decided to seek public input at an early stage. This was due to several factors, including 1) the importance of this southernmost segment of the trail, 2) the presence of substantial amounts of private property along all of the alternatives, and 3) the potential for controversy concerning the alignment of this segment. Over 300 letters (Appendix B-1) requesting input were sent along with a map depicting the four alternatives to persons on BLM and Forest Service mailing lists. In addition, 40 letters (Appendix B-2) and maps were sent to persons who had previously expressed concern about impacts to Native American values in the

Tecate Peak area. Finally, approximately 60 letters (Appendix B-3) were sent to the landowners owning property in the general area of one or more of the alignments.

The formal public input period ended May 15, 1982. A total of 30 individuals, 11 organizations, and six Local, State, or Federal government agencies responded with letters or notes containing specific comments or input. An additional 20 individuals, organizations, or agencies responded without comment, indicating that they wished to remain on the project mailing list.

A summary of public input received through May 20, 1982, follows:

Respondents--Individual

1. Charles L. Adams
Professor of English
University of Nevada, Las Vegas
4505 Maryland Parkway
Las Vegas, NV 89154

2. Howard and Harriet Allen
3750 El Canto Drive
Spring Valley, CA 92077

3. Arbaugh Enterprises
Dan A. Arbaugh
227 West Douglas Ave.
El Cajon, CA 92020

4. Dr. Larry E. Bennett
Dept. of Chemistry
San Diego State University
San Diego, CA 92182

5. William D. Clemons
9502 Fairbanks Ave.
San Diego, CA 92123

6. Clarence E. Coffin
566 B Ave.
Coronado, CA 92118

7. Guy Dahms
6121 Osuna N.E. #D-2
Albuquerque, NM 87109

8. Lynn E. Davis
16505 Wilderness Road
Poway, CA 92064

9. Peter M. Dragin
Box 1327
Rancho Sante Fe, CA 92067

10. Harve R. Dunlap
6380 Calle Pavana
San Diego, CA 92139

11. Anthony T. Dunn
6210 Calle Empinada
San Diego, CA 92120

12. Betty Fellows
2879 Angell Ave.
San Diego, CA 92122

13. Virlis L. Fischer
3508 Victory Ave.
Las Vegas, NV 89121

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Respondents--Individual (continued)

14. Linda Jean Foster
11433 Eucalyptus Hills Dr.
Lakeside, CA 92040

15. Mike Fridella, Jr.
6520 W. 81st St.
Los Angeles, CA 90045

16. Marie J. Friend
4119 Highland Ave. #4
San Diego, CA 92105

17. Sharon M. Graham
1100 Hilltop Dr.
Dillon, MT 59725

18. D. E. Hickle
11637 Wildcat Canyon Rd.
Lakeside, CA 92040

19. Tim C. Higginson
11433 Eucalyptus Hills Dr.
Lakeside, CA 92040

20. Mrs. C. R. Kepple
4133 Maryland St.
San Diego, CA 92103

21. Campo Lake Properties, Limited
George G. Hom, D.D.S.
4410 30th
San Diego, CA 92116

22. Louise Marshall
16812 36 Ave. W
Lynnwood, WA 98036

23. Edwin C. Krug
4872 Mt. Alifan Dr.
San Diego, CA 92111

24. Robert G. Langsdorf
6580 Avenida Mirola
La Jolla, CA 92037

25. Lee Miranda
1121 Palm Ave.
National City, CA 92050

26. Wm. L. Page
4444 Harding Ave.
Los Angeles, CA 90066

27. Gary Phillips
8039 - 13 NW
Seattle, WA 98117

28. Craig Stenland
5055 Collwood Blvd. #315
San Diego, CA 92115

29. Jim Weinel
17050 Hierba Dr.
San Diego, CA 92128

30. Wilfred Wiebe
3204 La Entrada Ct.
Bakersfield, CA 93306

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Respondents--Organizations

1. Audubon Society, San Diego
Bob R. O'Brian, Conservation Chairman
c/o San Diego State University
San Diego, CA 92182

2. Backpacking Club of San Diego
Skip Ruland, Director
3514 So. Cordoba Ave.
Spring Valley, CA 92077

3. Camp Research Foundation
Warren L. Rogers, President
P. O. Box 1907
Santa Ana, CA 92702

4. Conservation Call
Roscoe A. Poland, Director
3942 Hughes Court
San Diego, CA 92115

5. California Wilderness Coalition
Jim Eaton, Executive Director
P. O. Box 429
Davis, CA 95616

6. Desert Area Research Team (DART)
Richard T. Gochnaur, Director
8202 Vista del Rosa
Downey, CA 90240

7. Mountain Defense League
Byron F. Lindsley, Jr., Director
P. O. Box 2267
San Diego, CA 92112

8. Pacific Crest Trailblazers
Richard C. Payne
3836 Alameda Way
Bonita, CA 92002

9. San Diego County Trails Council
James E. Miller, President
3702 Fourth Ave., Suite A
San Diego, CA 92103

10. San Diego Orienteering Club

11. San Diego Museum of Man
Douglas Sharon
1350 El Prado, Balboa Park
San Diego, CA 92101

12. Sierra Club--San Diego Chapter
Frank Norris, Desert/BLM
Committee Chairman
House of Hospitality
1549 El Prado, Balboa Park
San Diego, CA 92101

13. Southwestern Prospectors
and Miners Association
M. H. Frizzell
4508 Vista St.
San Diego, CA 92116

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Respondents--Government

Local

1. City of Oakland
Parks and Recreation Department
V. Hap Smith
Lake Merritt--1520 Lakeside Dr.
Oakland, CA 94612

2. County of San Diego
Clerk of the Board of Supervisors
LaRue M. Pierce, Deputy
1600 Pacific Hwy, Room 402
San Diego, CA 92101

State

1. Department of Fish and Game
Fred A. Worthley, Jr.
Manager, Region 5
350 Golden Shore
Long Beach, CA 90802

2. Department of Transportation
Russell O. Lightcap
Director of Transportation, District 11
By Kurth Barnes
Chief, Transportation Planning Branch
P. O. Box 81406
San Diego, CA 92138

Federal

1. U. S. Department of Justice
Immigration and Naturalization Service
Office of the Chief Patrol Agent
Dale Musegades, Acting Chief
U.S. Border Patrol
P. O. Box 42-E
San Ysidro, CA 92073

2. Department of the Treasury
U. S. Customs Service
Joseph E. Grammer, Port Director
Tecate, CA 92080

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Specific Route Preferences

Route A

First Choice

DART--Gochnaur
Dunn
Hickle
Krug
Miranda (with modification--see Alternatives Suggested)
Pacific Crest Trailblazers--Payne

Second Choice

Arbaugh Enterprises--Arbaugh
Dahms*
Langsdorf (with modification--see Alternatives Suggested)

Route B

First Choice

Audubon Society--O'Brian
Conservation Call--Poland (with modiication--see Alternatives Suggested)
S. W. Prospectors--Frizzell
Coffin
Dunlap
Fischer
Langsdorf (with modification--see Alternatives Suggested)
Clemons

Second Choice

San Diego County Trails Council--Miller

Route C

First Choice

State Fish and Game--Worthly
Arbaugh Enterprises--Arbaugh
Fridella

Second Choice

Clemons

Route D

First Choice

U.S. Border Patrol--Musegades
U.S. Customs--Grammer
Adams
Davis
Foster
Higginson
Camo Lake Properties--Hom
Stenland

*Annotated PC Club Poll Card

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Specific Route Preferences (continued)

Friend*
Phillips*
Wiebe*
Grahm*
San Diego Orienteering--Hanna*
Oakland Parks--Smith (with modification--see Alternatives Suggested)
Backpacking Club--Ruland "
Camp Research--Rogers "
Sierra Club--Norris "
Weinel "
Dahms*
Page*
San Diego County Trails Council--Miller

Routes B or C

Mountain Defense League--Lindsley
The Allens
Bennett
Kepple

Routes C or D

California Wilderness Coalition--Eaton
Fellows

Pacific Crest Club National Poll

Warren Rogers, President of the Camp Research Foundation and founder of the Pacific Crest Club, conducted a national poll of the membership of the latter organization. A map and information were sent to the entire Pacific Crest Club membership (reportedly over 600 members), along with a post card addressed to the Area Manager, El Centro Resource Area, BLM, on which each member's route preference could be indicated. (Note: Camp Research Foundation strongly supported a modification of Route D, and the information presented to Club members contained editorial comment expressing this strong preference).

Results:

Route	No. Members Indicating Preference
A	1
B	4
C	0
D	153
Modified D (Route D-1)	60
No Preference Indicated	3
TOTAL RESPONSES	221

*Annotated PC Club Poll Card

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Issues and Concerns Expressed

Note: Unless enclosed by quotation marks, the concerns expressed here are not quotes, but summarizations of the actual statements made. Where a number of respondents expressed similar views, their names are listed together under a summarization of the idea. Individual modes of expression varied greatly. This summary represents an effort to accurately summarize public input, rather than to fully present the position of each individual respondent.

1. How compatible will the PCT location be with present and anticipated land uses, particularly private property development?

a. It is desireable to cross as little private property as possible.
Arbaugh Enterprises--Arbaugh
Dahms
Davis
Fellows
Foster
Fridella
Hickle
Higginson
Krug
Payne
Stenland
Camp Research--Rogers
Sierra Club--Norris
Trails Council--Miller

b. As much of the trail as possible should cross designated roadless or wilderness areas.
California Wilderness Coalition--Eaton
Mtn. Defense League--Lindsley
Sierra Club--Norris
The Allens

c. The lands crossed by Route B have too much development potential and should not be used for a trail.
Arbaugh Enterprises--Arbaugh
Campo Lake Properties--Hom (concerning all Tecate alternatives)

d. Route B crosses so much private property that it may not be a practical alternative.
Fellows
Foster
Hickle
Payne

e. Intrusions in the Campo area (railroad, sewage treatment plant, old highway, juvenile detention facility) make this area undesireable for a trail.
Coffin
Langsdorf

f. Route D would give a possible economic boost to the residents of Campo.
Davis

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g. The 500 KV powerline must be considered in selecting a route.
Sierra Club--Norris

h. The border trailhead on Route D will be spoiled by the 500 KV powerline.
Langsdorf

i. Route C could use some of the 500 KV powerline easement and thus save funds.
Trails Council--Miller

2. What will the impacts be on private landowners?

a. Overnight camping on private lands could be a problem with Route B.
Dunn

b. Route D would cause "less reports/complaints from the involved property owners due to it's being in a much less populated and congested area."
U.S. Customs--Grammer

See also items 1a, 1c, and 1d.

3. Does the trail meet PCT experience objectives?

a. Through hikers prefer the straightest, shortest trail, and that should be an objective of this section.
Backpacking Club--Ruland
Sierra Club--Norris
Weinel

b. The trail should avoid existing roads.
Sierra Club--Norris
Foster

c. Scenic vistas and views ("crest experience") are desireable (most cited their favored alternative as providing this opportunity).
Davis
Fellows
Foster
Fridella
Higginson
Miranda
Payne
Stenland
Sierra Club--Norris
Trails Council--Miller

d. Route A is the most scenic and/or historically interesting route.
Dunn
Hickle
Krug
Langsdorf ("best wilderness experience")

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e. Route A is "not good for the backpacker."
Weinel

f. Route A is too long.
Fellows
Langsdorf
Trails Council--Miller (length is a disadvantage)

g. Hikers would find Hauser Mountain much more agreeable than the present road hike.
Foster

h. Route D from Campo over Hauser Mountain is worse than the present road hike.
Langsdorf

See also items 1b, 1e, and 1h.

4. What will the project cost?

a. Project cost is an important factor in selecting a route.

Dahms	Backpacking Club--Ruland
Page	Camp Research--Rogers
Stenland	Sierra Club--Norris
Wiebe	Trails Council--Miller

5. What effect will off-road vehicles have on the PCT?

a. Completion of a "hiking only" trail should not affect existing motorized vehicle usage--no vehicle routes should be closed to provide "atmosphere" for the trail.
DART--Gochnaur

b. Illegal use of the trail by off-road vehicles will be a problem, since the trail will be inadequately patrolled.
Bennett
Dragin
Foster

6. How well will the trail meet the trailside needs of the hiker (i.e., camping spots, shade, water, etc.)?

a. It would be desireable for the trial to pass through or very close to Potrero County Park.

Coffin	Conservation Call--Poland
SW Prospectors--Frizzell	Trails Council--Miller
Langsdorf	

b. Water availability is a minor concern on this trail segment.
Fellows
Sierra Club--Norris

c. A "reasonable" distance between water supplies is important, but the distance from the Border to Morena Lake (via Route D) is "reasonable."
Foster

d. Potrero County Park is not really needed as an overnight stop, especially if a Border campsite facility is provided.
Fridella

e. Availability of water and campsites along the trail are considerations in trail routing. (Cites water/campsite situation for each route.)
Langsdorf

7. How will the trail affect cultural resources and Native American concerns in the Tecate Peak Area?

a. Route A is undesireable or unacceptable because it passes close to sacred Native American areas near Tecate Peak.
Adams
Bennett
Mtn. Defense League--Lindsley

8. What safety hazards exist?

a. A terminus at Tecate is inappropriate because of the concerns of the Border Patrol and trail travellers concerning illegal aliens and smugglers.
Sierra Club--Norris

b. Care should be taken to route the trail so that it doesn't become a runway for illegal aliens.
The Allens
Bennett
Higginson

c. On Route D, there is no concern over meeting illegal-possibly armed-aliens, nor is there interaction with Border Patrol officers.
Foster
Trails Council--Miller (Campo relatively much safer than Tecate)

d. Route D would be most rustic and safest, especially for inexperienced hikers.
Campo Lake Properties--Hom

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e. Safe highway crossings are important considerations in routing.

Davis	CalTrans--Lightcap/Barnes
Dragin	Trails Council--Miller

9. Will the trail create additional policing problems for the Border Patrol?

a. Border Patrol and Customs considerations are important and should be given strong consideration.

Coffin	Page
Fellows	Stenland
Davis	Sierra Club--Norris
Higginson	Trails Council--Miller
Langsdorf	

b. The Border Patrol objects to routes B and C.
Camp Research--Rogers

c. Route C parallels the Border for too long.
Coffin
Langsdorf
Payne

d. The Border Patrol has voiced no objection to Route B in informal discussion.
Coffin

e. Route B "causes least problems for the Border Patrol."
Langsdorf

f. "It is our opinion that Route D from Campo would be the most direct route from the border and would interfere the least with our operations and sensors."
Border Patrol--Musegades

g. "Our recommendation would be to use Route D as shown on your map. "We feel it would cause less problems for the enforcement agencies involved in the apprehension of illegal aliens, etc...."
U.S. Customs--Grammer

See also Items 8a, 8b, and 8c.

10. How well does the trail location lend itself to public access or feeder trails?

a. Route alternative A passes close to Boy Scout Camp Coochama, which would provide an opportunity for a connecting trail.
Coffin
Langsdorf

b. A connecting trail could be built from Potrero County Park to intersect with route D on Hauser Mountain, thereby providing the opportunity to hike or ride a horse from the park to Campo.
Trails Council -- Miller

See also item 6a.

11. Will the trail terminus be at an official entry port permitting access to Mexico?

a. Crossing the Border is not important to most PCT users, who are primarily interested in starting their trip.
Camp Research--Rogers

b. Most long distance hikers and equestrians want to, at least briefly, cross the Border into Baja California.
Coffin

c. The possibility of an international crossing is an important consideration favoring Tecate.
Coffin
Fischer
Hickle
Langsdorf
Mtn. Defense League--Lindsley
Trails Council--Miller

d. Route D south of Campo is not acceptable due to the lack of a border crossing.
Coffin
Fischer
Hickle
Langsdorf
Payne

e. "I like the idea of the southern terminus being at a border point. "But is Tecate the most appealing place to start or end 1500 plus miles of trail?"
The Allens

f. Campo offers a more tranquil trailhead than a busy south-of-the-border town.
Higginson

12. What southern terminus will provide the most trailhead facilities and services?

a. Rural bus transit service to Campo (5 times per week) is better than to Tecate (3 times per week).
Foster
Camp Research--Rogers
Backpacking Club--Ruland
Sierra Club--Norris

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b. The commercial campground in Campo is an important factor favoring Campo.
Camp Research--Rogers
Backpacking Club--Ruland
Trails Council--Miller

c. Campo offers more hiker and equestrian services than Tecate. The Border Riders Club befriends equestrians and may be able to provide overnight stables.
Camp Research--Rogers

d. The Border Riders Club could possibly provide a docent safety patrol along Route D.
Trails Council--Miller

e. Campo offers a post office and store, both prized by hikers.
Foster

f. The Campo terminus is more convenient than Tecate for Interstate 8 travellers.
Sierra Club--Norris

g. Tecate is conveniently accessible via Highways 94 and 8.
SW Prospectors-Frizzell

h. Route D ending south of Campo is not acceptable due to poor public transportation and lack of services.
Coffin
Payne

i. At the end of the trail south of Campo, the hiker must backtrack 1.7 miles to reach public transportation.
Coffin
Langsdorf
Dunn

j. Tecate has public transportation three times a week, a post office, and "a couple" of stores.
Dunn

k. Tecate has public transportation to the trail's end.
Langsdorf

13. What effects will the PCT have on the biophysical environment?

a. Protection of raptor nesting sites is important.
The Allens

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b. Contamination of ground water, wells, and streams by people and horses is a concern.
Dragin

c. Route C would have the least impact on wildlife water sources.
St. Fish and Game--Worthley

14. Engineering/design/construction concerns.

a. Ease of construction is an important factor.
Arbaugh Enterprises--Arbaugh

b. Route A would pose construction difficulties in some places.
Arbaugh Enterprises--Arbaugh
Coffin
Langsdorf
Trails Council--Miller

c. Please no flat switchbacks.
Foster

d. Please limit the number of signs.
Foster

See also item 8e.

15. How much longer do we have to wait?

a. Timely completion of this segment is important.
Fellows
Fischer
Payne
Coffin
Weinel
Camp Research--Rogers
Oakland Parks--Smith
Marshall

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Alternatives Suggested

Route A-1. Same as Route A from Tecate to McAlmond Canyon. Then northwest to saddle 1/2 mile NE of Barrett Lake Dam. Then east from this saddle up Hauser Canyon. (Langsdorf)

Route A-2. Follow South Boundary Road west along the south rim of Hauser Canyon to the existing jeep trail that parallels the south rim, then continuing south to the proposed Route A. (Miranda)

Route B-1. From Tecate this route goes directly north to the base of the hill, then climbs east to Route B and crosses Highway 94. Then it goes due north to Potrero County Park. At the park, it turns east to rejoin Route B. (Langsdorf) (Similar suggestion made by Conservation Call--Poland.)

Route D-1. In T. 18 S., R. 4 E., Section 12, turn due north following public land to connect with the alignment of proposed Routes B, C, and D. (Similar suggestions by Camp Research--Rogers, Backpacking Club--Ruland, and Weinel).

Route D-2. Similar to Route D-1 north of Highway 94, but routed through the hills west of Campo and across some private property to reduce road walking. (Sierra Club--Norris)

Route E. From the old Customs House south of Campo, follows the hills east of Campo Valley, crosses Highway 94 1/4 mile east of where the Highway crosses the railroad. Then north along the east side of the Campo Indian Reservation, through the narrows of La Posta Creek, then joining the current trail southwest of Boulder Oaks. (Langsdorf)

"Why not continue to use the current trail from Otay? Your writeup did not indicate if the western route is to eliminated. Could there be three legs south of Cleveland?" (The Allens)

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Landowner Response

In addition to the responses from the general public, 27 Permission Statements were returned by landowners. Of these 26, 21 granted BLM permission to enter their property for purposes of study, survey, design, and appraisal of the trail alignment. One landowner who granted permission to enter for study indicated opposition to having the trail cross his land. Six landowners denied permission. An additional nine landowners were contacted by telephone. All gave permission to enter their land for purposes of study, but all but one expressed reluctance or outright opposition to having the trail actually cross their property. No responses were received from approximately 20 landowners to whom inquiries were sent. Some of the inquiries were returned stamped "left no forwarding address" or "addressee unknown," and new addresses could not be obtained. Some landowners listed in the County Assessor's records had no phone listing, and in other cases where a number could be obtained, the caller was unable to raise an answering party.

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Telephone Contacts

The following individuals, organizations, or agencies were contacted by telephone in the course of preparing this EA.

San Diego County

Dept. of Public Works
Jack Redfern
Trails Coordinator

Dept. of Planning and Land Use
Dennis Struecker
Transportation Planning

Lois Miller

Dept. of Parks and Recreation
Tony Perkins
Mgr., Potrero and Morena Co. Parks

Dept. of General Services
Ed Cornett
Division of Real Property

Assessor's Office
Larry Bergtren
Mapping Department

State of California

Department of Transportation, District 11
Gene McDonald
Transportation Planning

U.S. Government

U.S. Forest Service
Cleveland National Forest
Dean McAlister
Gary Vogt
Lou Hays

Pacific Southwest Region
Dick Austin

U.S. Postal Service
George Swinden
Postmaster, Campo CA

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Telephone Contacts (Continued)

Individuals and Organizations

Border Riders Club, Campo
George Duckworth
Glenn Francis

Sierra Club-San Diego Chapter
Frank Norris

Camp Research Foundation
Warren Rogers

Individual PCT Hiker
Linda Foster

San Diego County Trails Council
Jim Miller

Backpacking Club of San Diego
Skip Ruland

San Diego and Arizona Eastern Railroad
C.E. Harrington, Roadmaster
H.R. Noblin, Assistant Roadmaster

Pacific Crest Trail Advisory Council
Clarence Coffin
Florence Landon
Mary Louise Brooks Weber

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X. EVALUATION OF ALTERNATIVES

A. Costs

1. Land Acquisition

Survey and purchase of land plus title and appraisal fees are cost factors included in this estimate of land acquisition costs.

Estimated acquisition costs include:

Land purchase	@	$1,800 per acre (see note below)
Survey fee	@	$2,500 per mile of trail
Title fee	@	$ 100 per parcel
Appraisal fee	@	$ 700 per parcel

All of the above cost estimates are variable. The figure of $1,800 per acre for land purchase is used as a uniform figure for comparison purposes. The actual cost per acre may vary widely from this figure, depending on assessed value of individual parcels and negotiations with individual landowners. The other unit cost figures are estimates provided by a BLM land appraiser. Additional costs should be anticipated. It is possible that condemnation may be necessary to acquire rights-of-way across some sections of private land. Condemnation proceedings are time consuming and expensive. Due to the highly variable costs associated with condemnation, no cost estimates are given.

Chart X A 1 illustrates the estimated costs per trail alternative. These figures are approximations of the costs which are likely. No detailed on-the-ground survey or appraisal work has actually occurred along any of the alternatives as of yet. These figures have been provided so that the approximate relative costs of each alternative can be compared.

2. Trail Construction Costs

The trail construction cost estimates in Chart X A 2 are provided based on information supplied by Cleveland National Forest. These estimates were computed in the following manner. Using aerial photographs each trail alignment was analyzed and then divided into one of three different construction cost categories; high, medium or low. Portions of trail over severely sloped or excessively rocky terrain were assigned a "high" cost rating. Trail construction over these areas will be expensive and necessitate careful planning. Construction costs are predicted to be $20,000 per mile over segments of trail in this category. Portions of trail over level areas or gentle slopes that are relatively free of rock outcrops or large boulders have been rated in the "low" category. Few trail construction problems should be encountered and construction costs are normally below average ($7,000 per mile). Between these two extremes are trail segments in the "medium" range where average costs ($13,000 per mile) are expected.

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Chart XA1 - Estimated Acquisition Costs

Dimensions	Length	Survey	Acres*	Purchase	# Parcels	Title	Appraisal	Total
A	1.8 mi.	$ 4,500	6.55	$11,790	6	$ 600	$ 4,200	$21,090
B**	6.0 mi.	$15,000	21.84	$39,312	18	$1,800	$12,600	$70,212
C	3.4 mi.	$ 8,500	12.37	$22,266	12	$1,200	$ 8,400	$40,366
P	1.3 mi.	$ 3,250	4.73	$ 8,514	6	$ 600	$ 4,200	$16,564
D**	3.0	$ 7,500	10.92	$19,656	6	$ 600	$ 4,200	$33,456
D-1**	3.0	$ 7,500	10.92	$19,656	6	$ 600	$ 4,200	$33,456

* Computed for a 30-foot wide easement at the rate of 3.64 acres per mile of easement.

** Figures for routes B, D, and D-1 include the costs of purchasing easements across County of San Diego lands as well as private lands. Included in the total is a $1,500 processing fee assessed by the County under its cost recovery program.

Chart XA2 - Trail Construction Cost Estimates

Unit Cost	Low $7,000 (mi)	Medium $13,000 (mi)	High $20,000 (mi)	Paved/Primitive Road $0	Total
A	0	115,700 (8.9)	114,000 (5.7)	(4.4)*	229,700 (19.0)
B	4,200 (0.6)	74,100 (5.7)	42,000 (2.1)	(2.1)	120,300 (10.5)
C	4,900 (0.7)	92,300 (7.1)	68,000 (3.4)	(2.8)	165,200 (14.0)
P	4,200 (0.6)	92,300 (7.1)	66,000 (3.3)	(0.8)	162,000 (12.0)
D	7,000 (1.0)	84,500 (6.5)	46,000 (2.3)	(1.2)	137,500 (11.0)
D-1	7,000 (1.0)	75,100 (5.7)	44,000 (2.2)	(1.0)	126,100 (10.0)

* The estimate for Alternative A assumes the use of 2.8 miles of primitive road in Hauser Canyon at no cost. If the trail were to be built as mapped for Alternative A, requiring new construction in a high cost category, total trail cost would increase by approximately $60,000 to $289,700.

All construction cost estimates are for contract cost only and do not include costs for design, survey, contract preparation, contract administration, or signing.

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3. Total Costs

	Land Acquisition	Trail Construction	Total
A	$21,090	$229,700	$250,790*
B	70,212	120,300	190,512
C	40,366	165,200	205,566
P	16,564	162,000	178,564
D	33,456	137,500	170,956
D-1	33,456	126,100	155,556

* 310,790 if Alternative A were constructed as mapped.

B. Evaluation/Rating Process and Results

On May 26, 1982, an interagency BLM - USFS team of specialists and a representative of the Pacific Crest Trail Advisory Council met to review public input and the results of preliminary studies, and to evaluate the alternative routes.

Participants in this review and evaluation process were:

Steve Nelson	Recreation Planner	BLM El Centro
Don Banks	Visitor Services Specialist	"
Bob Schneider	Recreation Planner	"
Barry Ashworth	Chief, Resource Protection	"
Tom Rodda	Recreation Program Lead	BLM Riverside
Dave Beine	Right-of-Way Acquisition Specialist	BLM Sacramento
Dean McAlister	Forest Recreation Officer	USFS, San Diego
Gary Vogt	Landscape Architect	USFS, San Diego
Dorothy Hall	Archaeologist	USFS, San Diego
Greg Greenhoe	Resource Officer	USFS, Alpine
Clarence Coffin	Pacific Crest Trail Advisory Council	Coronado, CA

As part of the review of public input, the team discussed the various route alternatives suggested by the public. At the conclusion of discussion, it was decided to alter route B in the Potrero County Park area in accordance with suggested route B-1, so that the trail would pass through the park rather than skirting the eastern edge as origi-

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nally depicted. It was also decided to add route D-1 to the evaluation and study process. The other suggested routes were carefuly considered, but it was decided not to use them for various reasons. These included excessive trail length, the fact that some bypassed existing water sources and amenity developments, and excessive use of private property.

The following table displays the results of how the team evaluated each of the alternatives against the 14 Goals of Management (pages 4 through 6). The "weighting factor" depicted in the left-hand column was derived by having each team member rank the 14 goals in the order of increasing significance, with the least significant goal receiving a rating of "1", the most significant a "14." The weighting factor for each goal represents the average of that goal's rating on the scale of 1 to 14. The numbers in parentheses below each weighting factor represent the lowest and highest ranking that goal received. The wide spread evident for most goals illustrates the wide difference of opinion that existed between team members regarding relative significance of some of the goals. This was consistent with the wide difference of opinion evident in public responses on similar issues. By using an average value as the weighting factor, the full range of opinion was taken into account.

After the weighting factors were established, each team member rated "how well" each alternative met each "goal." A scale of 1-5 ws used in this instance with a "1" representing low ability of an alternative to satisfy a specific goal and a "5" representing "high" ability. Each team member rated all alternatives against all goals, and the average of these individual ratings was computed for use as the team's overall group rating. This group (average) rating appears as the upper number in each matrix block.

The lower number in parentheses in each matrix block represents the product of the upper number times the weighting factor for the goal. This lower figure represents the total number of points earned by an alternative in meeting the particular goal.

The total figure represents the sum of all numbers in parentheses for each alternative. This total provides an overall indicator of how well an individual alternative met all goals of management, and provides a basis of comparison between alternatives. The assignments of numerals and the related computations should be viewed only as an aid to interpret how the evaluation of alternatives was made rather than absolute procedure for identifying a preferred alternative.

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Hauser Segment Route Evaluation

Weighting Factor	Goal of Management	Alternatives					
		A	B	P	C	D	D-1
13 (10, 14)	Maximize PCT Experience	4 (52)	3 (39)	3 (39)	3 (39)	4 (52)	4 (52)
10 (4, 14)	Minimize Overall Project Costs	1 (10)	3 (30)	4 (40)	3 (30)	4 (40)	5 (50)
10 (4, 13)	Provide Terminus having Availability of Services	5 (50)	5 (50)	1 (10)	5 (50)	4 (40)	4 (40)
10 (5, 14)	Maximize Use of Public Land	4 (40)	1 (10)	4 (40)	3 (30)	4 (40)	4 (40)
9 (3, 14)	Minimize Adverse Effects to Private Landowners	3 (27)	1 (9)	4 (36)	3 (27)	5 (45)	5 (45)
9 (6, 13)	Meet Basic Trail Amenity Needs	3 (27)	5 (45)	3 (27)	3 (27)	3 (27)	4 (36)
8 (2, 14)	Minimize Potential Safety Hazards	3 (24)	3 (24)	1 (8)	2 (16)	4 (32)	4 (32)
7 (2, 14)	Provide Access to the PCT	3 (21)	4 (28)	3 (21)	4 (28)	4 (28)	4 (28)
6 (3, 13)	Minimize Impacts to Border Patrol/US Customs	3 (18)	2 (12)	2 (12)	2 (12)	5 (30)	5 (30)
6 (2, 13)	Compliment Existing and Anticipated Land Uses	3 (18)	2 (12)	3 (18)	3 (18)	4 (24)	4 (24)
6 (3, 14)	Provide Terminus at an International Port of Entry	5 (30)	5 (30)	2 (12)	5 (30)	1 (6)	1 (6)
5 (2, 9)	Minimize Adverse Effects to Biophysical Environment	4 (20)	4 (20)	4 (20)	4 (20)	4 (20)	4 (20)
5 (2, 10)	Minimize Adverse Effects to Cultural/Native American Resources.	2 (10)	4 (20)	4 (20)	4 (20)	4 (20)	4 (20)
2 (1, 12)	Minimize Changes From Federal Register route	1 (2)	3 (6)	5 (10)	4 (8)	2 (4)	2 (4)
	Total	349	335	313	355	408	427

Maximum points possible: 530
Minimum points possible: 106

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Positive Attributes - Route A

1. Offers the best scenery of all alternatives and provides a good "crest" experience.
2. The terminus in Tecate has good availability of services and public transportation.
3. The route makes good overall use of public land.
4. The route passes close to Boy Scout Camp Coochama, with opportunities for feeder trails to this camp and the Pine Valley trail system.
5. Provides a terminus at an International Port of Entry, allowing legal access to Mexico.
6. Would not produce serious adverse effects to the biophysical environment.
7. Would have fewer impacts to Border Patrol activities than the other routes ending at Tecate.

Negative Attributes - Route A

1. Has the highest overall project cost of all alternatives.
2. Landowners along the route have indicated opposition.
3. While numerous campsites are found along the route, the distance between "protected" water sources exceeds the 15 mile limit established in design criteria for the PCT.
4. It is the longest of the alternatives, adding a day to the time required to hike the PCT.
5. While it would have relatively minor impact to Border Patrol surveillance activities, the route is frequently used by illegal aliens and the chance of encounters between hikers and aliens would be high.
6. Could create conflicts with Native Americans due to its proximity to Tecate Peak, which is sacred to Native Americans.
7. Is a major departure from the Federal Register route.

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8. The first half mile of the route would be located on the shoulder of State Highway 188, which is used by an average of over 4000 vehicles per day.

Positive Attributes - Route B

1. Is the most direct route into Tecate.

2. The terminus in Tecate has good availability of services and public transportation.

3. The route passes through Potrero County Park, which provides many hiker amenities, and which could be developed as an equestrian trailhead and campground.

4. The route would provide good access to the PCT for maintenance and management purposes.

5. The route provides a terminus at an International Port of Entry, allowing legal access to Mexico.

6. The route would have few impacts to the biophysical environment or Native American concerns.

Negative Attributes - Route B

1. Crosses the most private property (17 parcels) of any route. Some landowners have expressed opposition.

2. Provides fewer opportunities for a "crest" experience than the other alternatives.

3. Would have some impact on Border Patrol surveillance activities.

4. The route is frequently used by illegal aliens.

5. Encounters many potential experience conflicts (landowner hostility, conflicting land uses). As the Tecate area is developed in the future, more intrusions (power and telephone lines, road crossings, nearby structures) are likely to appear along the route.

6. The route must pass through prime development land along Highway 94 in order to cross the highway at a safe location.

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Positive Attributes - Published Route

1. Would not involve any relocation and would therefore not require approval by the Chief, US Forest Service.
2. Would provide good scenery and a "crest" experience.
3. Would be relatively inexpensive to build.
4. Makes good use of public land.
5. Would provide trail amenities within PCT guidelines.
6. Would have few impacts to the biophysical environment or Native American values.
7. Existing jeep routes on Hauser Mountain provide access for maintenance and managment purposes.

Negative Attributes - Published Route

1. The terminus would be approximately two miles from services and public transportation.
2. Access to the trailhead across private property would have to be obtained. This road access easement would be more expensive than the trail easement required to connect the PCT to Tecate in the case of Route C.
3. The route would create major conflicts with Border Patrol surveillance activities.
4. The route is frequently used by illegal aliens. The Border trailhead would be at an area of frequent illegal crossing, with a low level of security for parked vehicles.
5. The terminus would be approximately two miles from an International Port of Entry (the closest legal access to Mexico).
6. Some landowners have expressed opposition.

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Positive Attributes - Route C

1. Involves very minor relocation of the route, probably not requiring approval by the Chief, US Forest Service.
2. Provides a terminus at an International Port of Entry, allowing legal access to Mexico.
3. Provides a terminus having a good availability of services and public transportation.
4. Other positive attributes are identical to those of the published route, with the exception of item #1.

Negative Attributes - Route C

1. The route would create major conflicts with Border Patrol surveillance activities.
2. The route is frequently used by illegal aliens, with a high probability of contacts between hikers and aliens.
3. Some landowners along the route have expressed opposition to the PCT on their land.
4. Approximately two miles of the route would be located along the shoulders of streets and roads in the Tecate area.

Positive Attributes - Route D

1. Offers a good scenery and a "crest" experience.
2. Has the second-to-the-lowest overall project cost.
3. Provides a terminus near Campo, which has good availability of services and public transportation.
4. Makes good use of public land, including County land in the Campo area.
5. Along with Route D-1, this route will have the fewest adverse impacts on private landowners.
6. Provides basic amenity needs within PCT guidelines.
7. Along with Route D-1, presents the fewest conflicts with Border Patrol surveillance activities.

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8. Due to the location of the terminus away from a populated area south of the Border, this area is little used by illegal aliens. The likelihood of confrontations between hikers and aliens is low. All things considered, the routes terminating south of Campo are considered the safest for trail users.

9. Existing jeep routes on Hauser Mountain provide access for maintenance and management purposes.

10. Along with Route D-1, this route passes through an area less likely to experience dramatic growth and development of private property than the routes terminating in Tecate.

11. Will have a few impacts to the biophysical environment or Native American values.

Negative Attributes - Route D

1. Does not end at an International Port of Entry, and therefore, does not provide an opportunity for PCT users to legally enter Mexico at the terminus of the trail.

2. Trailhead facilities and public transportation in Campo are located 1.7 miles from the trailhead, requiring hikers to hike south from Campo to the Border and return via the same trail.

3. Approximately 1/4 mile of the trail follows the shoulder of Forrest Gate Road through Campo.

4. The route passes near the Rancho Del Campo Juvenile Detention Facility, with the possibility of occasional encounters between escaped inmates and trail users.

5. The route must cross the San Diego and Arizona Eastern Railroad (which the routes ending in Tecate avoid). The crossing, which must be at grade, necessitates additional expense and presents a potential safety hazard not found on the Tecate routes.

6. Is a major departure from the Federal Register published route.

Positive Attributes - Route D-1

Positive attributes for Route D-1 are identical to those for Route D, with the following exceptions:

1. Route D-1 has the lowest overall project cost of any of the alternatives.
2. Route D-1 is one mile shorter than Route D, and has the shortest distance of any of the alternatives between the Border and the completed PCT in Hauser Canyon.

Negative Attributes - Route D-1

Negative attributes for Route D-1 are identical to those for Route D.

C. Selection of a Preferred Alternative

Based upon the preceding alternative analysis and comparison, and the results of the interagency route evaluation meeting, it is recommended that Alternative D-1 (Mexican Border to Cleveland National Forest via Campo and the east slope of Hauser Mountain) be adopted as the preferred alternative for the Hauser Segment of the Pacific Crest Trail.

All factors considered, Alternative D-1 is considered the best route. It will provide users with a good "PCT experience" and can be built at the lowest possible cost. Its southern terminus is located near Campo, which has a good availability of user services. It makes good use of public land (either Federal or County), and minimizes impacts to private landowners. The route meets PCT trail amenity guidelines, and poses the fewest safety hazards of all the alternatives. It compliments existing and anticipated land uses, and would create the fewest conflicts with Border Patrol and U.S. Customs operations. If properly mitigated, it will have only minimal impact to the biophysical environment and cultural resources.

The major disadvantage of the route is its failure to provide legal access across the Border into Mexico. Unfortunately, legal crossings of the Mexican Border in Southern California tend to be located in urbanized or developed areas, such as at Tecate, Mexico, which also experience the highest incidence of illegal crossing and smuggling. The type of international experience possible at the Canadian Border, where PCT hikers can cross the border in a remote area and hike several miles to a trailhead in Canada, is simply not possible here, at least at the present time.

After carefully weighing the advantages and disadvantages of the two alternative Border endings, it was concluded that safety and Border Patrol considerations, which weighed against Tecate, were of sufficient importance to outweigh the legal crossing factor in the selection of a Border terminus. The lack of a Port of Entry south of Campo is mitigated to an extent by the availability of public transportation to take trail users from Campo to Tecate three days per week. Other factors, such as a quiet, pastoral setting and residents who have traditionally welcomed PCT hikers, are important considerations establishing Campo as an appropriate terminus for the PCT.

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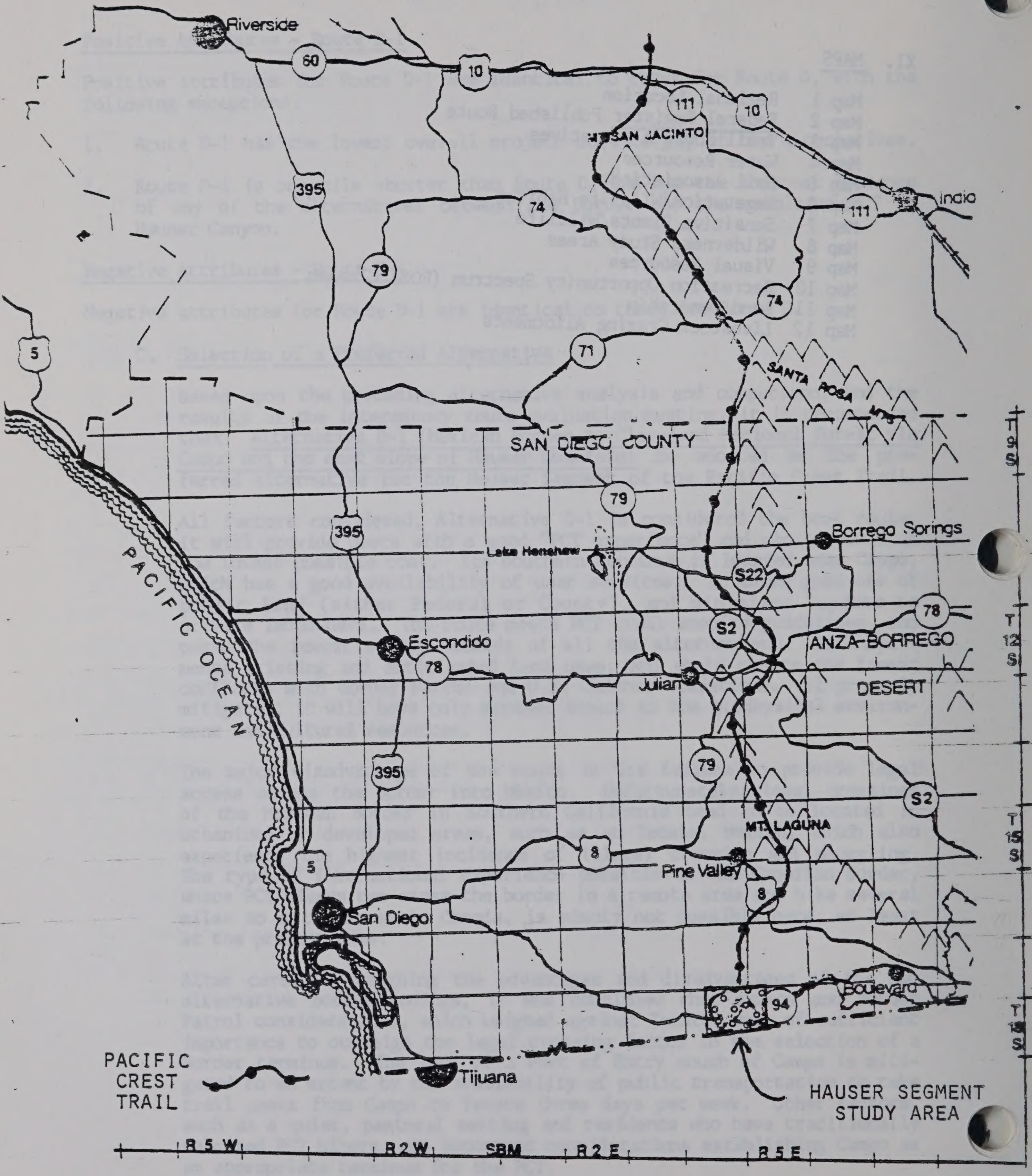
XI. MAPS

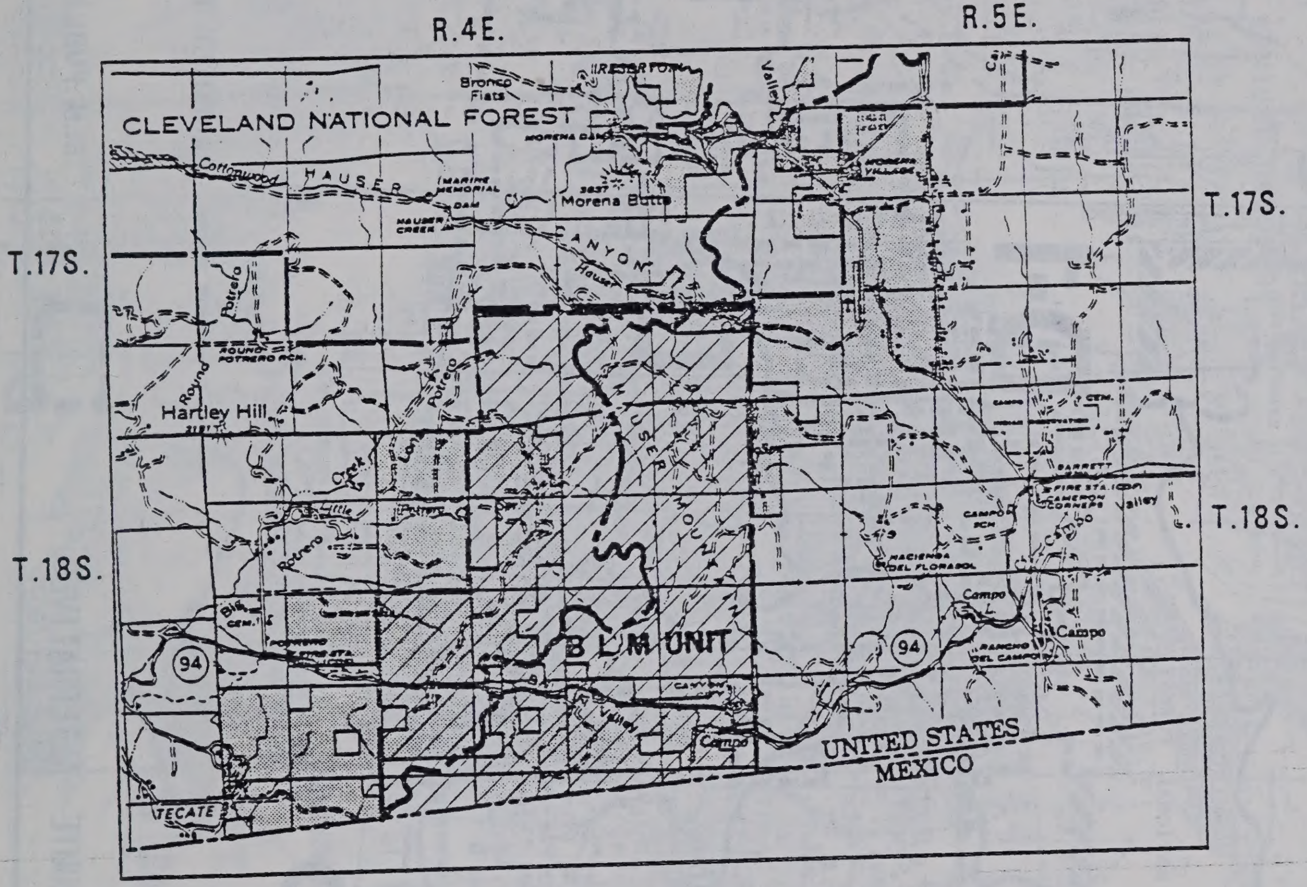
Map 1	Regional Location
Map 2	Federal Register Published Route
Map 3	Trail Route Alternatives
Map 4	Water Resources
Map 5	Soil Associations
Map 6	Vegetation/Wildlife Habitat
Map 7	Sensitive Plants/Wildlife
Map 8	Wilderness Study Areas
Map 9	Visual Resources
Map 10	Recreation Opportunity Spectrum (ROS) Classes
Map 11	Land Ownership
Map 12	Livestock Grazing Allotments

REGIONAL LOCATION MAP


Riverside
60
10
111
10
SAN JACINTO
Indio
111
395
74
79
74
5
71
SANTA ROSA MTS
SAN DIEGO COUNTY
T 9 S
79
395
Borrego Springs
Lake Henshaw
S22
78
PACIFIC OCEAN
S2
ANZA-BORREGO
DESERT
T 12 S
Escondido
78
Julian
79
395
S2
MT. LAGUNA
T 15 S
8
5
Pine Valley
8
San Diego
Boulevard
94
T 18 S
PACIFIC CREST TRAIL
Tijuana
HAUSER SEGMENT STUDY AREA
R 5 W
R 2 W
SBM
R 2 E
R 5 E

MAP 1

FEDERAL REGISTER PUBLISHED ROUTE


R.4E.
R.5E.
T.17S.
T.17S.
T.18S.
T.18S.
CLEVELAND NATIONAL FOREST
Bronco Flats
RESERVOIR
MORENA DAM
Morena Butte
3837
MARINE MEMORIAL DAM
HAUSER CREEK
Cottonwood
HAUSER
CANYON
Hauser
Valley
MORENA VILLAGE
Potrero
ROUND POTRERO RCH.
Round
Hartley Hill
Long
Potrero
Creek
Little
Potrero
Big
HAUSER MOUNTAIN
BLM UNIT
94
94
POTRERO FIRE STA.
CAMPO INDIAN RESERVATION
CEM.
BARRETT
FIRE STA.
CAMERON CORNERS
Valley
Campo
CAMPO RCH
HACIENDA DEL FLORASOL
Campo
Campo
RANCHO DEL CAMPO
Campo
CANYON CITY
Valley
UNITED STATES
MEXICO
TECATE

PACIFIC CREST TRAIL
CALIFORNIA

San Bernardino Meridian

Scale

0 1 2 3 Miles

LEGEND

Trail ▨ Private Land

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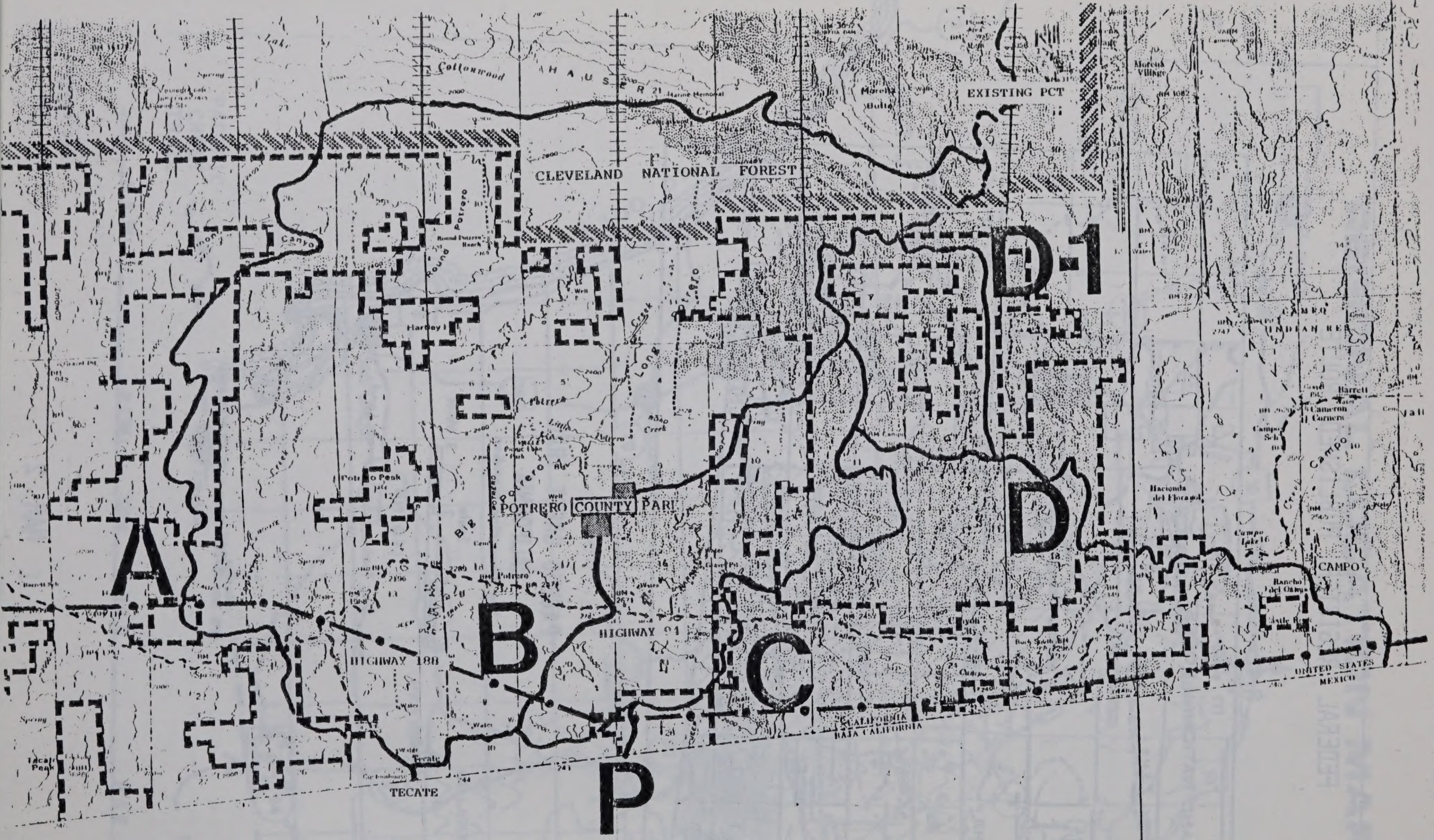
GPO 942-343

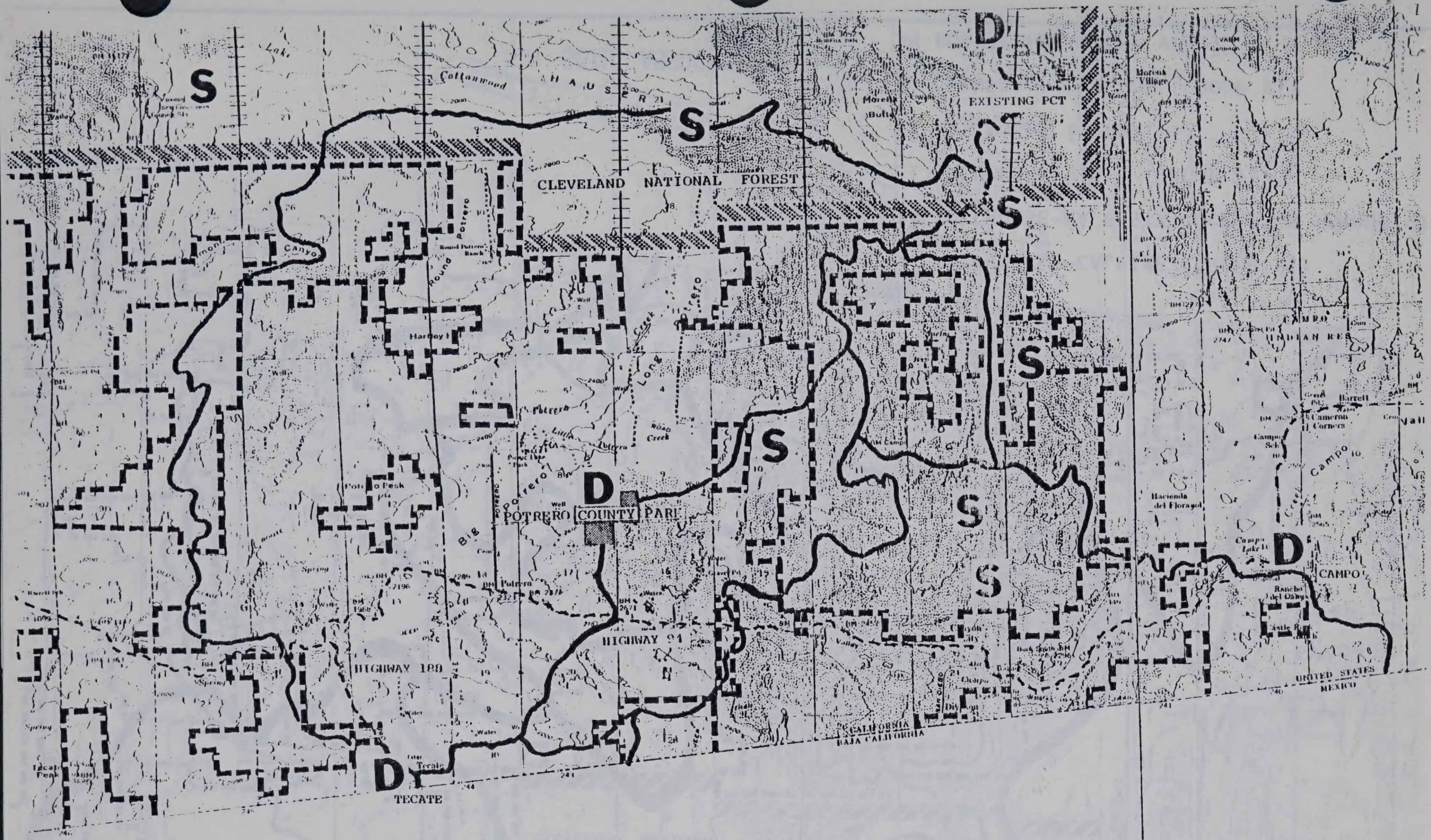
MAP 2


EXISTING PCT
CLEVELAND NATIONAL FOREST
HAUSER
Cottonwood
Round Potrero
Harbey
Potrero Peak
Big Potrero
Long Potrero Creek
POTRERO COUNTY PARK
D-1
D
A
B
C
P
HIGHWAY 188
HIGHWAY 94
TECATE
Tecate Peak
CAMPO
CAMPO INDIAN RES
Cameron Corners
Barrett
Morena Village
Hacienda del Florasol
Campo Lake
Rancho del Campo
UNITED STATES
MEXICO
CALIFORNIA
BAJA CALIFORNIA

—•—•— PROPOSED POWER LINE

TRAIL ROUTE ALTERNATIVES

▭ BLM PUBLIC LAND

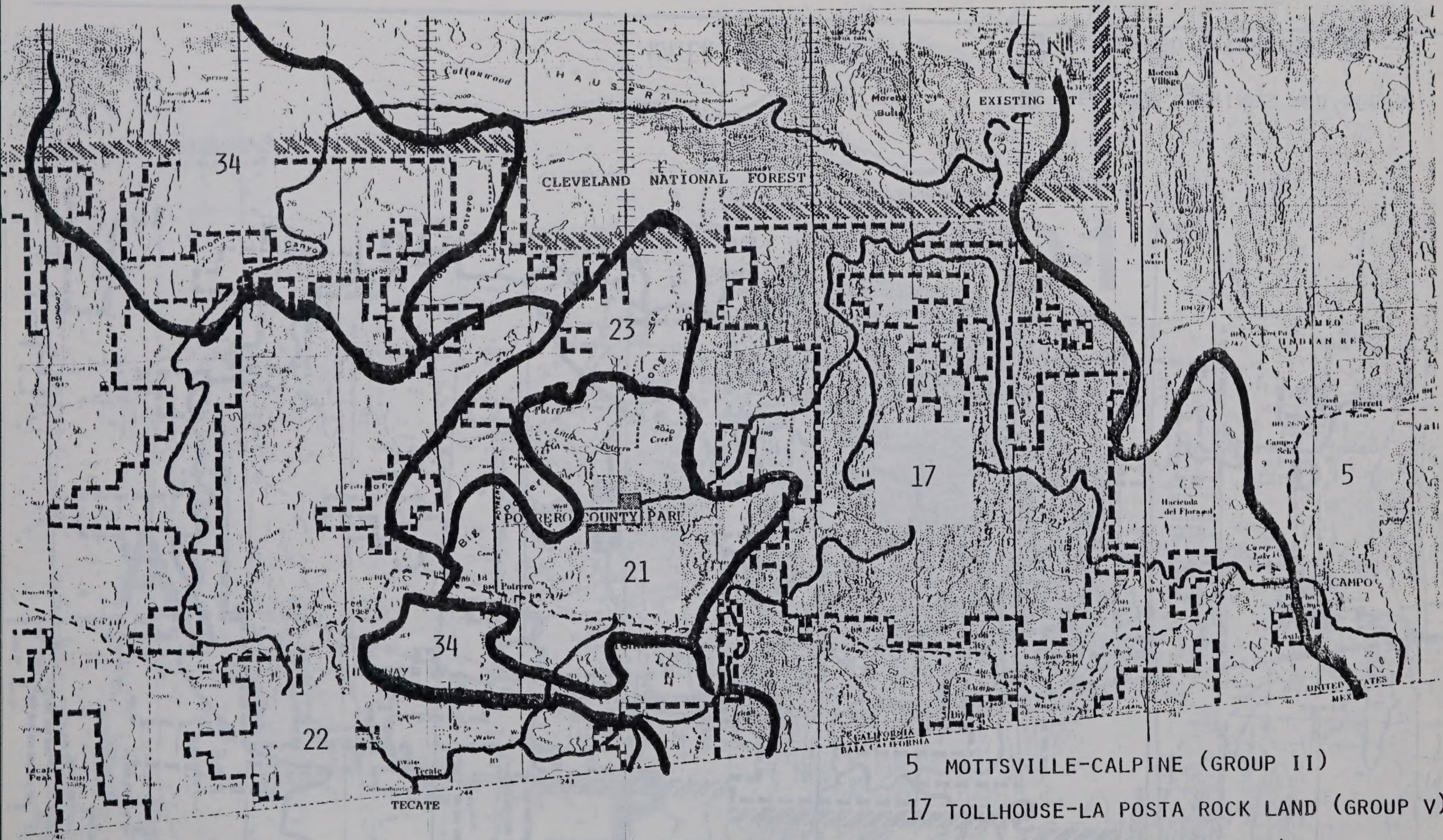

S
D
EXISTING PCT
HAUSER
Cottonwood
CLEVELAND NATIONAL FOREST
Morena Butte
Morena Village
Round Potrero
Hartley
Potrero Peak
Long Potrero
Little Potrero
Big Potrero
POTRERO COUNTY PARK
HIGHWAY 94
HIGHWAY 188
TECATE
Tecate Peak
CAMPO
CAMPO INDIAN RES
Cameron Corners
Hacienda del Florasol
Campo Lake
Rancho del Campo
Barrett
CALIFORNIA
BAJA CALIFORNIA
UNITED STATES
MEXICO

WATER RESOURCES

S SEASONAL SPRINGS AND SEEPS

D DEVELOPED WATER SOURCES

MAP 4


34
23
21
17
5
34
22
CLEVELAND NATIONAL FOREST
EXISTING
HAUSER
POTRERO COUNTY PARK
CAMPO
TECATE
UNITED STATES
MEXICO
CALIFORNIA
BAJA CALIFORNIA
Morena Village
Hacienda del Florasol
CAMPO INDIAN RES
Barrett
Tecate Peak

5 MOTTSVILLE-CALPINE (GROUP II)

17 TOLLHOUSE-LA POSTA ROCK LAND (GROUP V)

21 FALLBROOK-VISTA (GROUP VI)

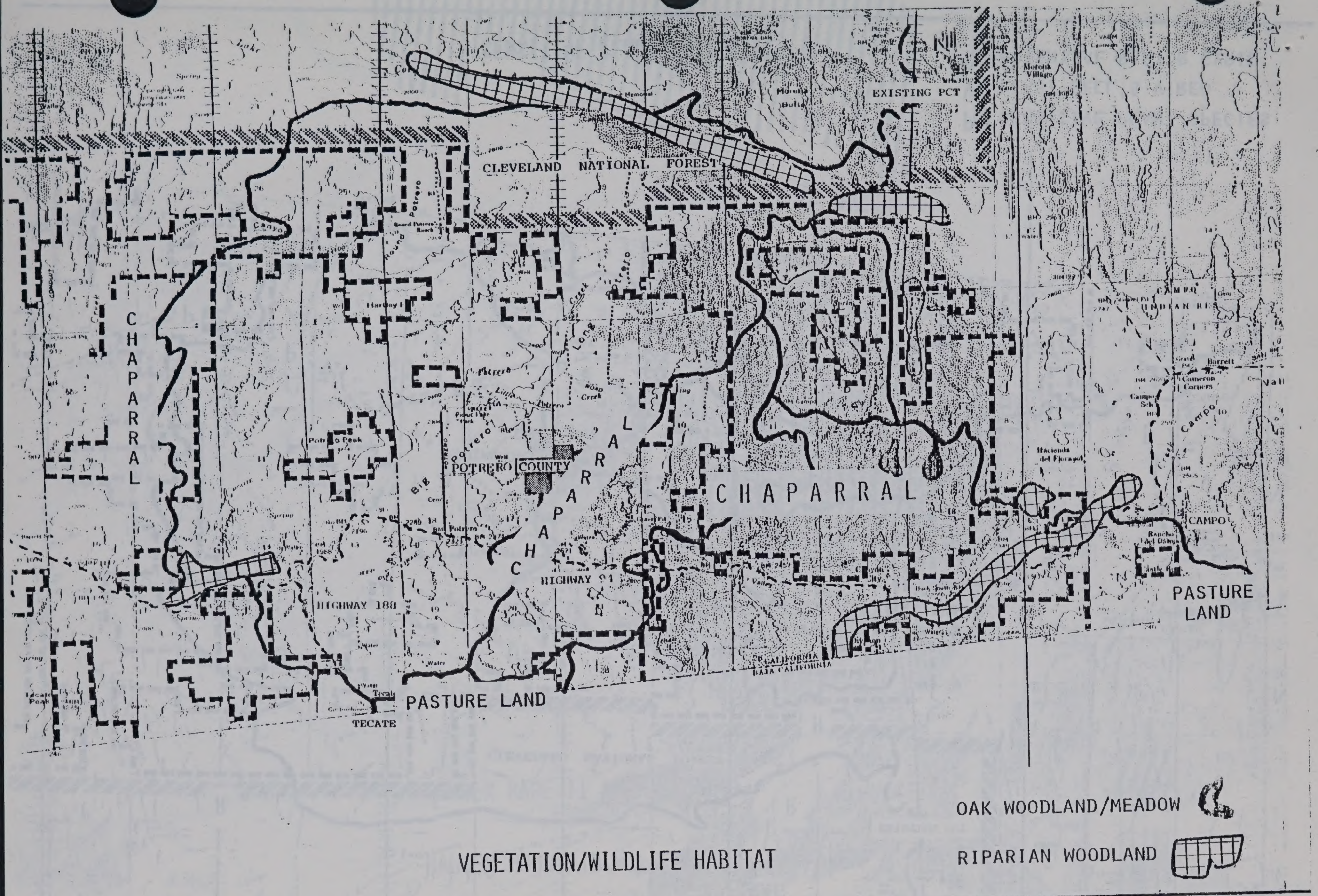
22 LAS POSAS (GROUP VI)

23 CIENEGA-FALLBROOK (GROUP VI)

34 ROCK LAND (GROUP VIII)

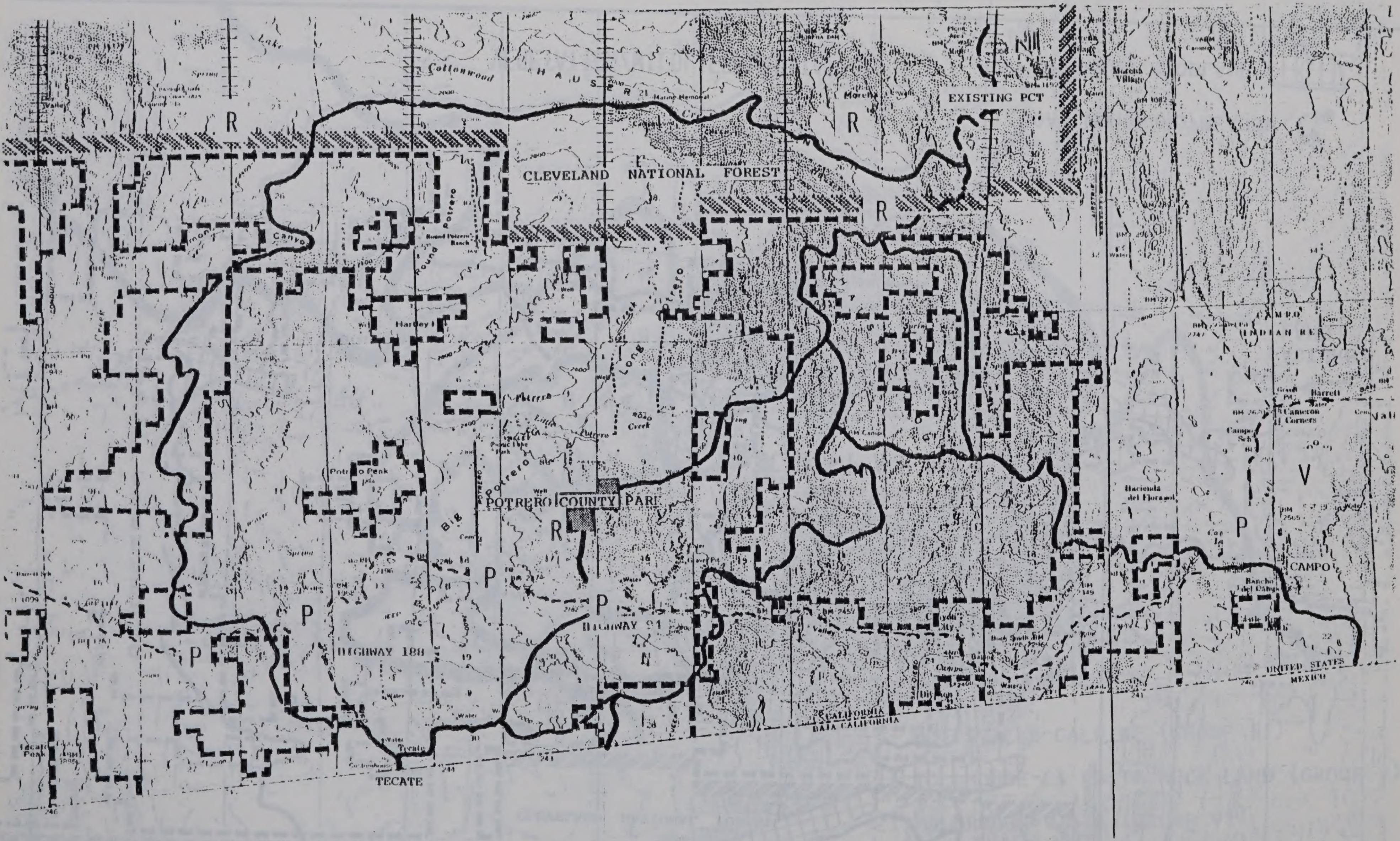
SOIL ASSOCIATIONS

MAP 5


EXISTING PCT
CLEVELAND NATIONAL FOREST
CHAPARRAL
CHAPARRAL
CHAPARRAL
POTRERO
COUNTY
HIGHWAY 94
HIGHWAY 188
PASTURE LAND
PASTURE LAND
TECATE
CAMPO
CALIFORNIA
BAJA CALIFORNIA
OAK WOODLAND/MEADOW
RIPARIAN WOODLAND

VEGETATION/WILDLIFE HABITAT

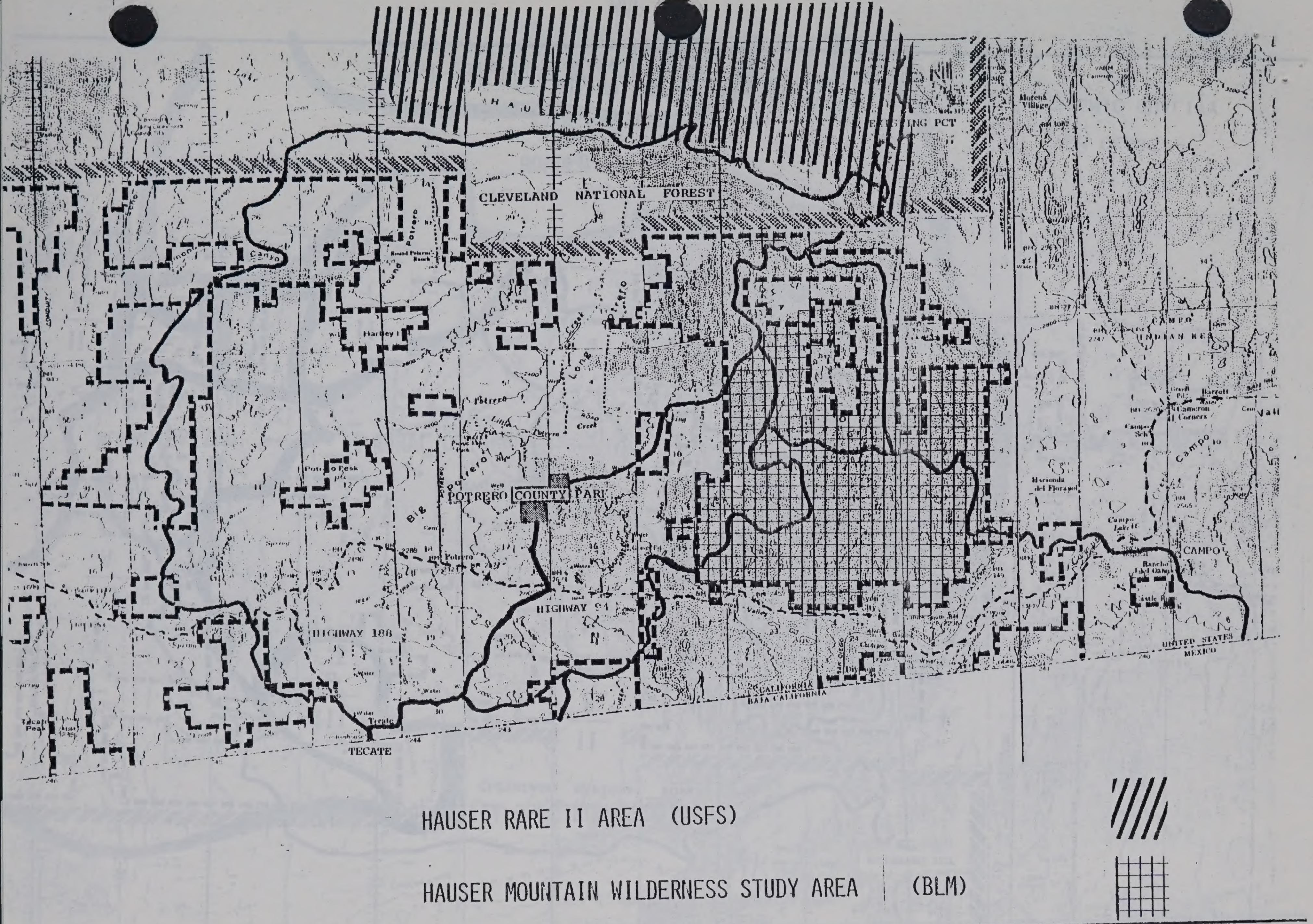
MAP 6


EXISTING PCT
CLEVELAND NATIONAL FOREST
HAUSER
Cottonwood
Harbey
Potrero Peak
Big Potrero
Little Potrero
Long Potrero
POTRERO COUNTY PARK
HIGHWAY 188
HIGHWAY 94
CAMPO INDIAN RES
Morena Village
Cameron Corners
Hacienda del Florasol
Rancho del Campo
CAMPO
TECATE
UNITED STATES
MEXICO
CALIFORNIA
BAJA CALIFORNIA
R
R
R
R
P
P
P
P
P
V
N
N

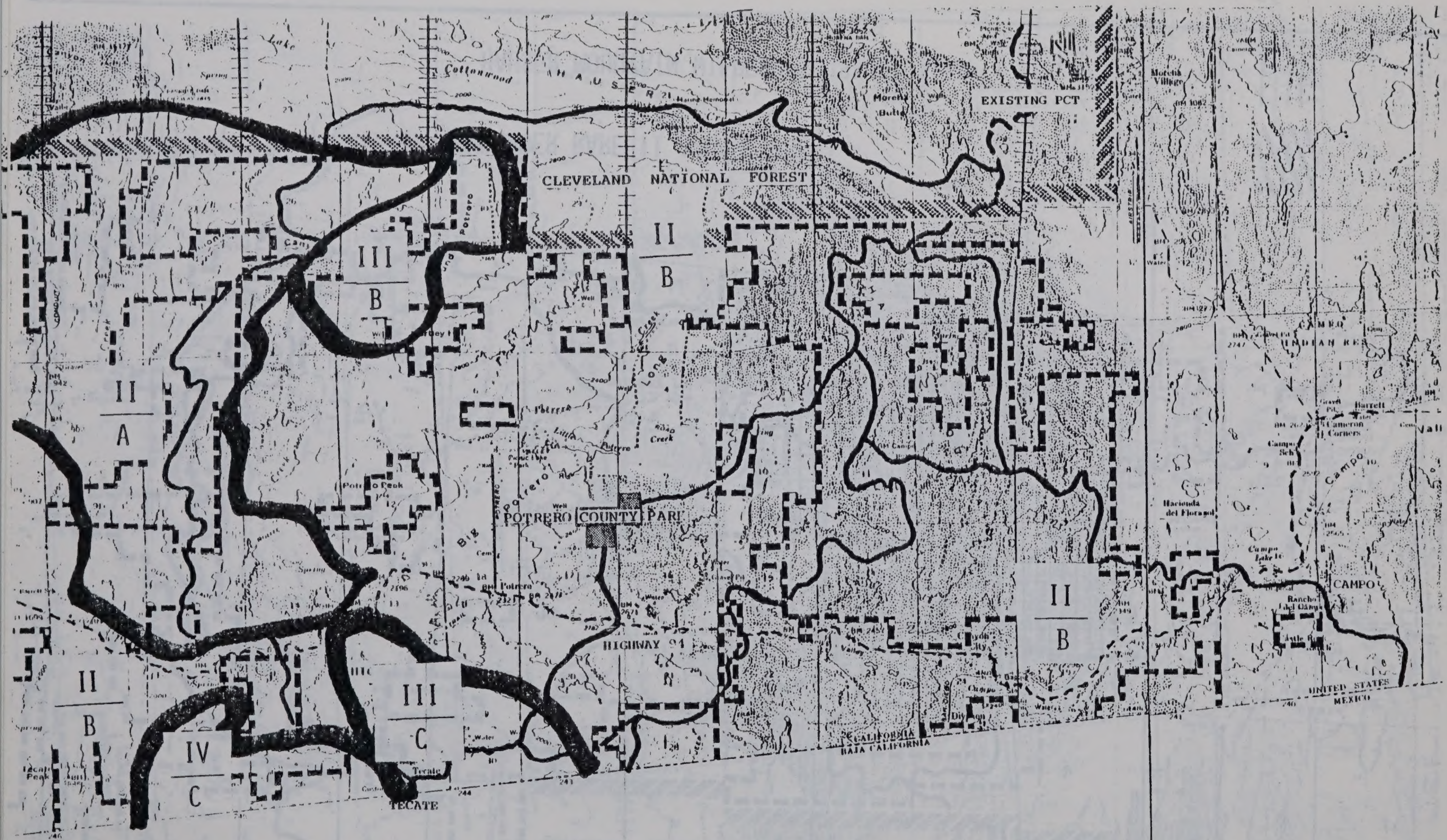
P SENSITIVE PLANT SPECIES
V LEAST BELL'S VIREO
R POTENTIAL RAPTOR EYRIE

SENSITIVE PLANTS/WILDLIFE

MAP 7


HAUSER
EXISTING PCT
CLEVELAND NATIONAL FOREST
Morena Village
CAMPO INDIAN RES
Cameron Corners
Round Potrero
Harvey
Potrero Peak
Long Creek
Big Potrero
POTRERO COUNTY PARK
Hacienda del Florasol
Campo Lake
CAMPO
Rancho del Campo
HIGHWAY 94
HIGHWAY 188
Tecate Peak
TECATE
CALIFORNIA
BAJA CALIFORNIA
UNITED STATES
MEXICO
HAUSER RARE II AREA (USFS) ▨
HAUSER MOUNTAIN WILDERNESS STUDY AREA (BLM) ▦

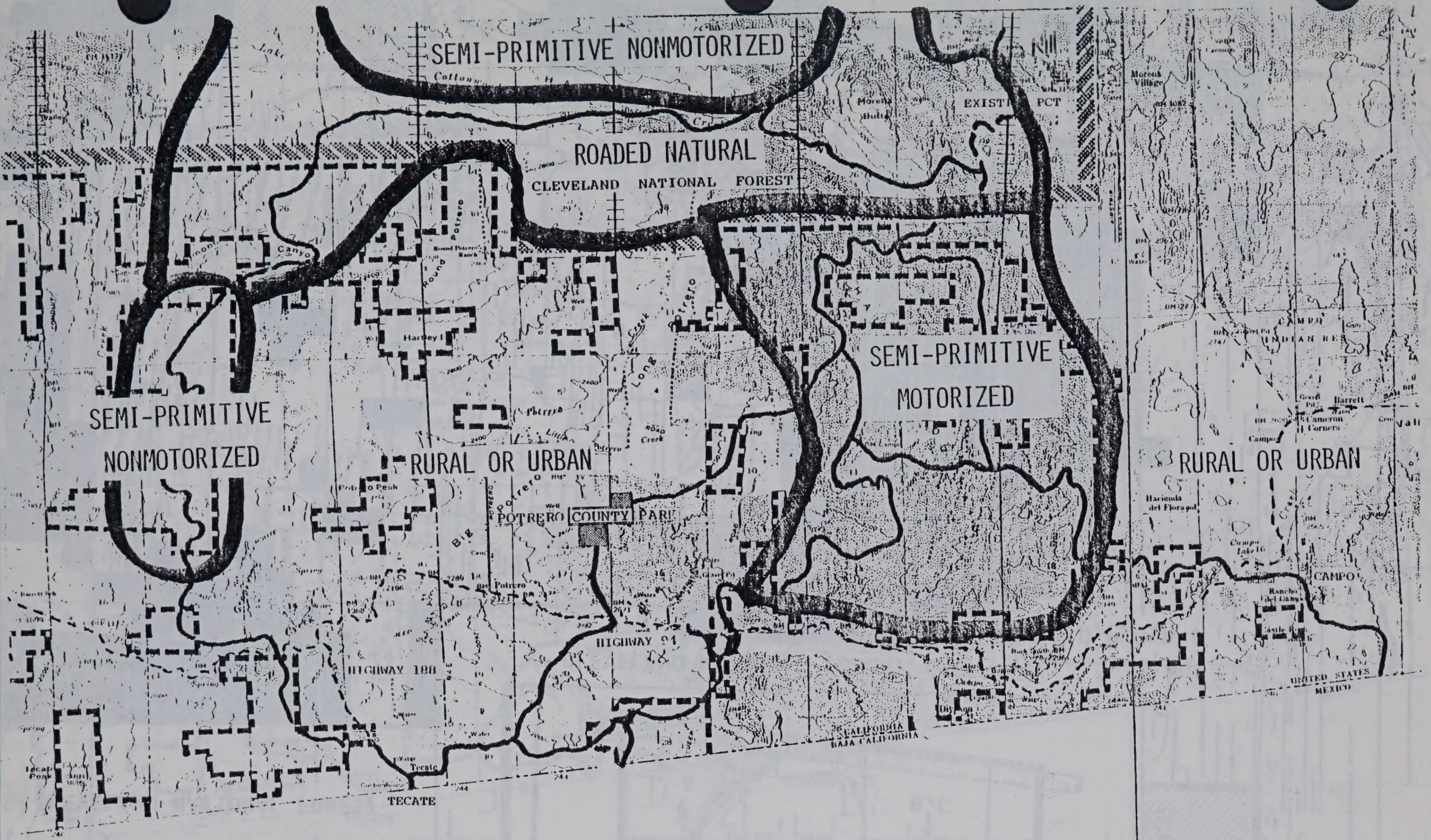
MAP 8


CLEVELAND NATIONAL FOREST
EXISTING PCT
III
B
II
B
II
A
Morena Village
Morena Butte
Cottonwood
POTRERO COUNTY PARK
Potrero Peak
Potrero
Big Potrero
Long Potrero Creek
HIGHWAY 94
CAMPO INDIAN RES
Cameron Corners
Barrett
Hacienda del Florasol
Campo Creek
Campo Lake
CAMPO
Rancho del Campo
II
B
II
B
IV
C
III
C
Tecate Peak
TECATE
CALIFORNIA
BAJA CALIFORNIA
UNITED STATES
MEXICO

II VRM CLASS

B SCENIC QUALITY

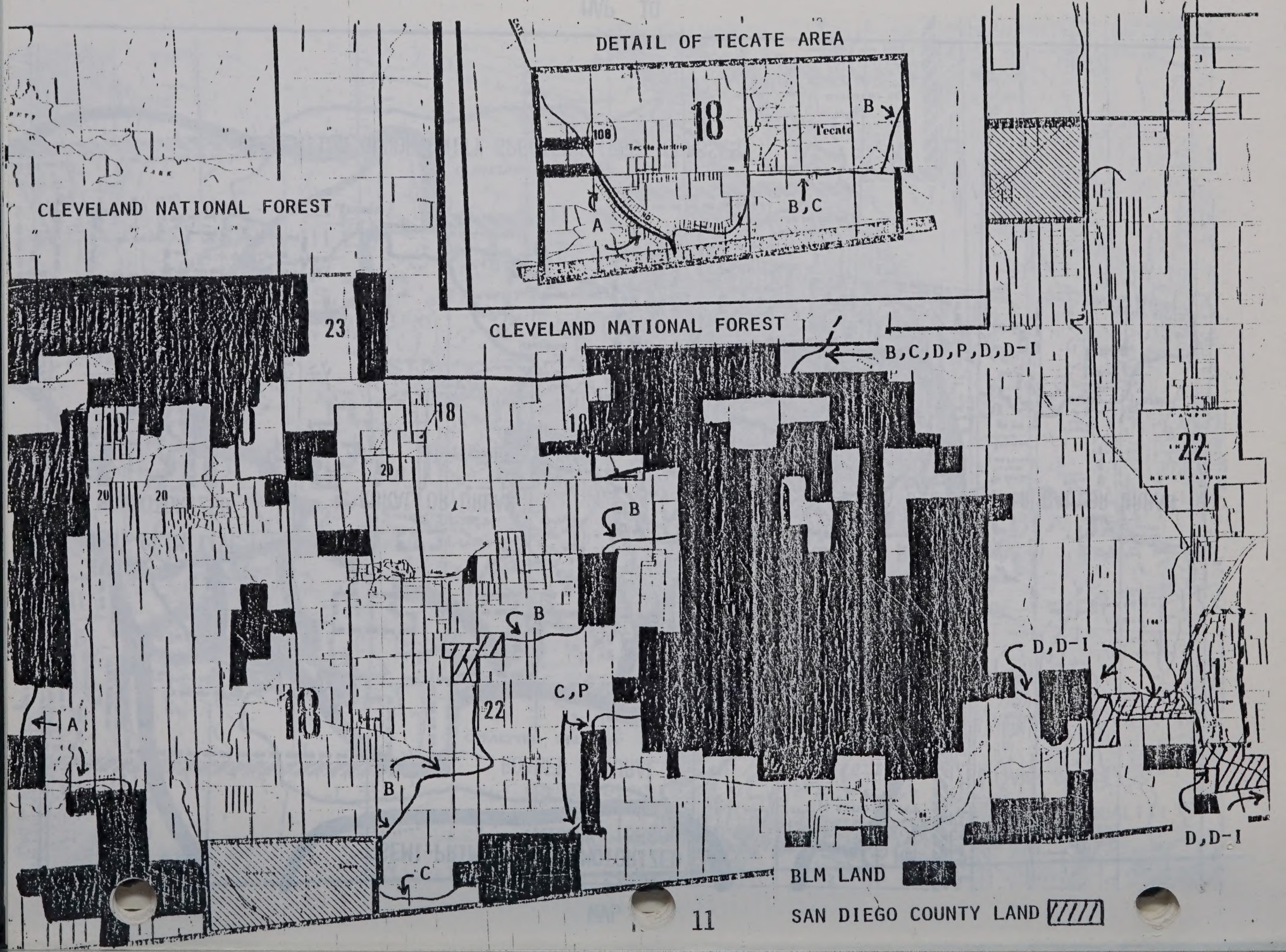
VISUAL RESOURCES

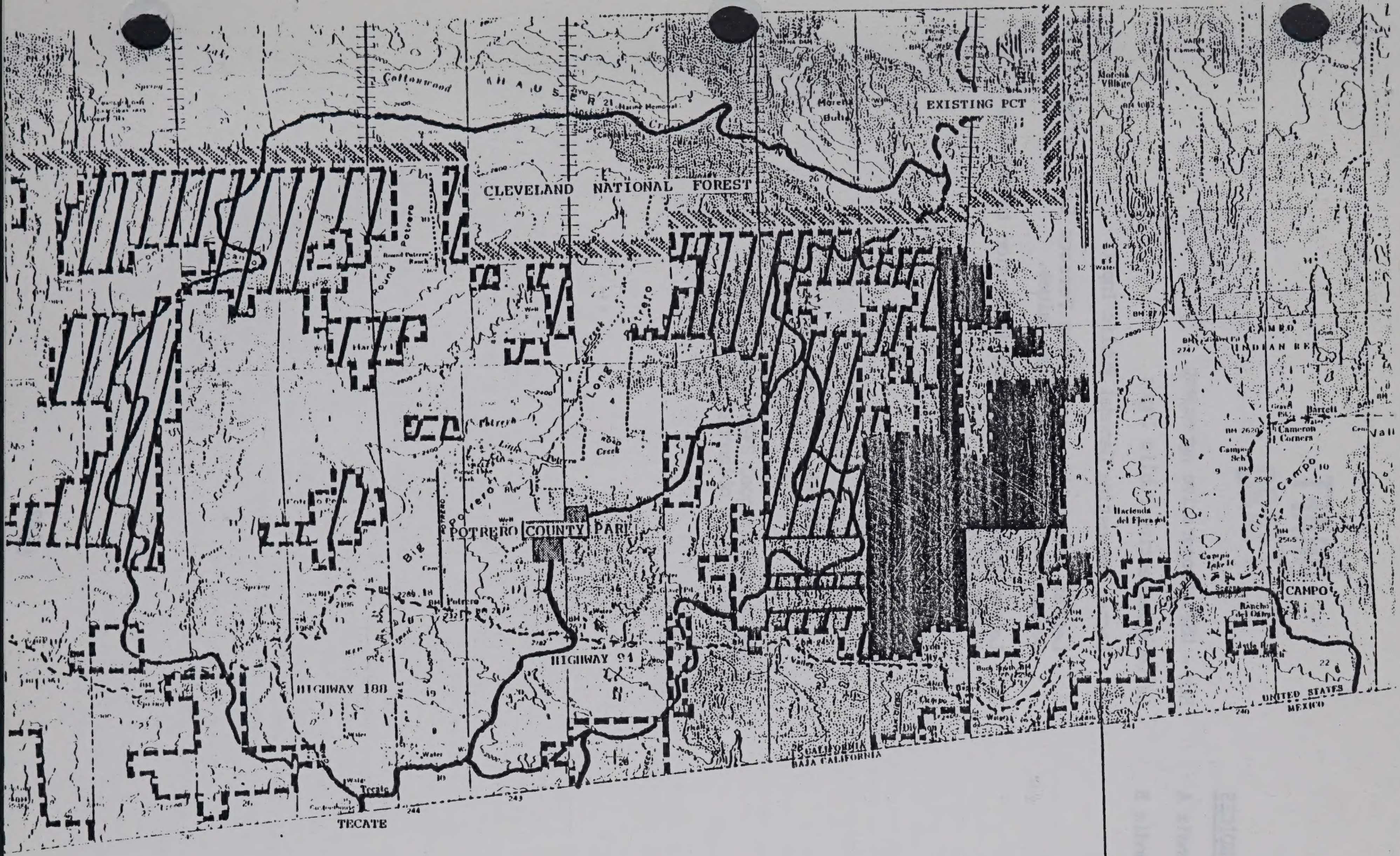

SEMI-PRIMITIVE NONMOTORIZED
ROADED NATURAL
CLEVELAND NATIONAL FOREST
EXISTING PCT
SEMI-PRIMITIVE MOTORIZED
SEMI-PRIMITIVE NONMOTORIZED
RURAL OR URBAN
RURAL OR URBAN
POTRERO COUNTY PARK
HIGHWAY 94
HIGHWAY 188
TECATE
CAMPO
UNITED STATES
MEXICO
CALIFORNIA
BAJA CALIFORNIA

RECREATION OPPORTUNITY SPECTRUM (ROS) CLASSES

MAP 10

LAND OWNERSHIP


DETAIL OF TECATE AREA
18
108
Tecate Airstrip
Tecate
B
B,C
A
CLEVELAND NATIONAL FOREST
23
CLEVELAND NATIONAL FOREST
B,C,D,P,D,D-I
18
18
18
20
20
20
22
B
B
18
22
C,P
D,D-I
1
A
B
C
D,D-I
BLM LAND ■
SAN DIEGO COUNTY LAND ▨


EXISTING PCT
Cottonwood
HAUSER
CLEVELAND NATIONAL FOREST
Morena Village
CAMPO INDIAN RES
Potrero
Round Potrero
Long Potrero Creek
Barrett
Cameron Corners
Campo Creek
Hacienda del Florasol
Campo Lake
POTRERO COUNTY PARK
Big Potrero
HIGHWAY 94
HIGHWAY 188
CAMPO
Rancho del Campo
UNITED STATES
MEXICO
CALIFORNIA
BAJA CALIFORNIA
TECATE

POTRERO ALLOTMENT ▨
HAUSER MOUNTAIN ALLOTMENT ■

GRAZING ALLOTMENTS

MAP 12

DRAFT

XII. APPENDICES

Appendix A BLM - USFS Cooperative Agreement

Appendix B Letters Requesting Public Input

1. Letter Requesting General Public Input
2. Letter Requesting Input From Persons Expressing Concern About Native American Values.
3. Letter Requesting Input and Permission to Enter on Private Property

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APPENDIX A

BLM - USFS Cooperative Agreement
Escondido Project Area

INTER-AGENCY AGREEMENT
BETWEEN THE
FOREST SERVICE, UNITED STATES DEPARTMENT OF AGRICULTURE
AND BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR

PURPOSE

This agreement is to facilitate the transfer from Bureau of Land Management administration certain public lands in California, as shown on the attached map. There are approximately 150,000 acres of public lands in the Escondido Project Area administered by BLM in California. The decision to transfer the public lands out of federal ownership or to Forest Service administration was made after BLM concluded land use planning involving federal, state and local agencies, as well as private citizens. This acreage does not justify a separate agency maintaining the staff, facilities, and travel costs to administer these lands. The Forest Service has similar resource management expertise and administers approximately 1.7 million acres of land in the vicinity of the Escondido Project Area. Therefore, for economic and practical reasons, it is agreed the Forest Service will assume administration of these public lands for the purposes of transferring certain lands to National Forest status.

AUTHORITY

This agreement is made pursuant to Section 307 of the Federal Land Policy and Management Act of 1976 (FLPMA).

ACTIONS

The Bureau of Land Management in coordination with the Forest Service will, by June 30, 1983, identify public lands in the Escondido Project Area that are (1) appropriate for state or local agency ownership under the Recreation and Public Purposes Act (R&PP), (2) appropriate for transfer out of federal ownership under the Exchange Program, (3) appropriate for the Asset Management Program and (4) appropriate to retain in federal ownership as part of the National Forest System.

After June 30, 1983, the Forest Service shall have administrative responsibility for these public lands in California until the lands are transferred out of federal ownership. The Forest Service will process these transfer actions under FLPMA authority. All actions for management or transfer of these lands will be performed by the Forest Service, except actions under R&PP, actions under Asset Management, issuance of patents and mineral leases, fire presuppression and suppression, adjudicative work under Color-of-Title, and those land exchanges proposed by BLM for consolidation of public lands in other areas of California. Forest Service will bill, collect, and disburse fees for those permits the Forest Service issues.

The Forest Service will assume the responsibility for R/W acquisition, survey, design, construction, and future maintenance and administration of the Pacific Crest Trail within the Escondido Project Area.

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APPENDIX B

Letters Requesting Public Input

Copies of these letters may be obtained by writing to:

Bureau of Land Management
333 South Waterman Avenue
El Centro, CA 92243

or by calling BLM at (714) 352-5842.

The Bureau of Land Management will process actions for transfer under R&PP, the Asset Management Program, and those exchanges to benefit administration of public lands in other areas, issue patents to public lands conveyed, issue mineral leases, and provide the Forest Service with appropriate information and data to facilitate administration and transfer of these public lands in California. The BLM will continue to contract with the California Department of Forestry and fund fire presuppression and suppression activities for the public lands in the project area until such time lands are either transferred to private ownership or are given legislative status as National Forest lands. BLM will complete the studies of six (6) Wilderness Study Areas, bill and collect fees for uses they authorized, maintain land status records, and review withdrawals of other agencies.

The Forest Service and Bureau of Land Management will by September 30, 1983, jointly develop a legislative proposal to transfer to National Forest status those public lands in the Project Area identified for retention in federal ownership.

Both agencies may utilize public lands mutually determined to be available for exchange purposes. It is the intent of this agreement that BLM and the Forest Service will maximize joint work and cooperation on exchanges, utilizing each agency's skills and manpower to achieve exchanges in the most efficient manner, including manpower pooling, coordinated scheduling and setting of priorities. Annual exchange plans will be developed at the beginning of each fiscal year between the BLM California Desert District and the Supervisors of the Angeles, San Bernardino, and Cleveland National Forests. Said plan will be reviewed and concurred in yearly by State Director, BLM and Forest Service, Regional Forester. Substantive deviations from the annual plan will be discussed between the agencies should the need for changes arise.

No member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

Nothing herein shall be construed as obligating the Forest Service or BLM to expend funds, or as involving the United States in any contract or other obligation for the future payment of money, in excess of appropriations authorized by law or administratively allocated for the work.

This agreement is effective on the date of the last signature and will remain in effect until modified by mutual consent or terminated by either party upon 30 days written notice.

Ed Hastey
State Director, California

5/13/82
Date

(Signed)
Regional Forester,
Pacific Southwest Region

5/25/82
Date